

21.328

22

# ELECTRIC SIGNS

---

THE METROPOLITAN ENGINEERING CO.  
Brooklyn New York







ELECTRIC SIGN CATALOGUE

OF THE

Metropolitan Engineering Co.

MANUFACTURERS AND ENGINEERS

Special  
Sales Agents

Westinghouse Electric and Manufacturing Co.

Electric Fans, Motors, Arc Lamps, Meters, Switchboards, Switches,  
Incandescent Lamps, Etc.

Nernst Lamp Co.

Simplex Heating and Cooking Devices.

---

NOTICE—In dispatches use the A. B. C. Code.

---

Show Rooms :

124 West 42d Street  
New York City

General Offices and Factory :

1250 Atlantic Avenue  
Brooklyn, N. Y.

WE CATER ESPECIALLY TO THE ELECTRIC WANTS  
OF CENTRAL STATIONS



## Introductory

WE have endeavored in this catalogue to represent as much as possible the various types of electric signs which are most popular to-day. It will be readily understood that, with our extensive business, involving the output of many hundreds of signs every month, it would take an immense volume to illustrate all of them, or even give a resumé of the most beautiful ones. ¶ The illustrations herein are self-explanatory, and for that reason we have omitted many facts and figures relating to construction and dimensions. However, it will give us pleasure to furnish in detail any information pertaining to any sign which we have constructed, also to present numerous sketches and estimates covering any prospective sign, carrying out any idea or suggestion which may be made. All you have to do is *to ask*. We will do the rest and do it *right*. Our great reputation is a guarantee of that. Sometimes we have not been the *cheapest*; but we have always been the *best, the recognized standard*.



## Attraction-Letter Signs

**W**E illustrate in Figure 1 our Attraction-Letter Sign, which is used extensively before theatres, department stores, and other places where it is desired to change the wording of the sign from week to week. The letters are made of heavy-gauge aluminum, and are fitted easily in a grooved frame which is supplied for supporting them. We carry a large stock of these letters in the 18-inch size and can furnish same immediately at any time. Being made of aluminum, the letters are absolutely imperishable. They are fitted with the latest type of high-grade sign receptacle.

*Rental.*—Sometimes it is desired to rent these letters for temporary signs, and our rental price is particularly low.

---

### PRICE LIST PER LETTER

Code Word	Size of Letter	List Price
LETTERA . . . .	14 inches high	\$5.00 per letter without frame
LITTIRA . . . .	18    "    "	6.00    "    "    "    "
LOTTORO . . . .	20    "    "	7.00    "    "    "    "
LATTARA . . . .	24    "    "	8.00    "    "    "    "

14—Rental charge for 18-inch letters, \$2.25 each per month.

15—Frame wired and complete for supporting 18-inch letters, \$1.50 per foot.

16—Rental charge for frame for supporting 18-inch letters, 50 cents per foot.

*Write for List of Discounts*

10 90-B6519-7CF





Fig. 1

An Attraction-Letter Sign.

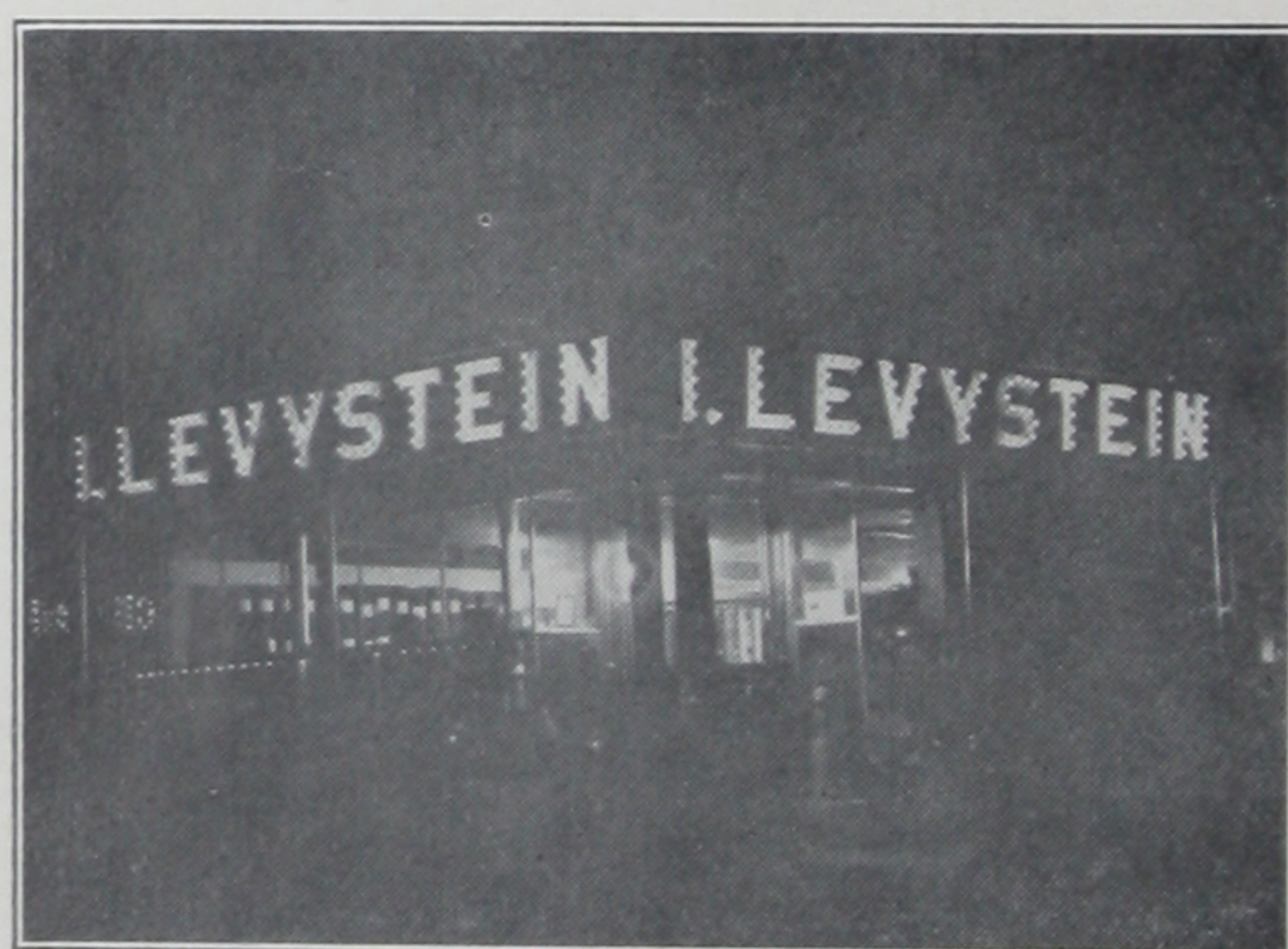


Fig. 2

One of our Signs erected in Montgomery, Alabama.



## Raised Letter Electric Signs

WE illustrate in figures 5, 7 and 8 respectively three of the standard sizes of raised electric block letters as they actually appear on a sign. These letters possess so many virtues over and above all other makes, that we can only enumerate the most important ones here, namely: (1) *removable-face letters*, (2) *our patented waterproof receptacle*, (3) *proper number of lamps to outline the letter*, (4) *proper proportion resulting from our experience*.

### Removable Face

WE show in figures 3 and 4 respectively what we mean by removable-face letters. It will be noticed that same may be slipped off from the face of the sign by simply removing the locking cotter-pins, and thus the letter is accessible at all times for the correction of

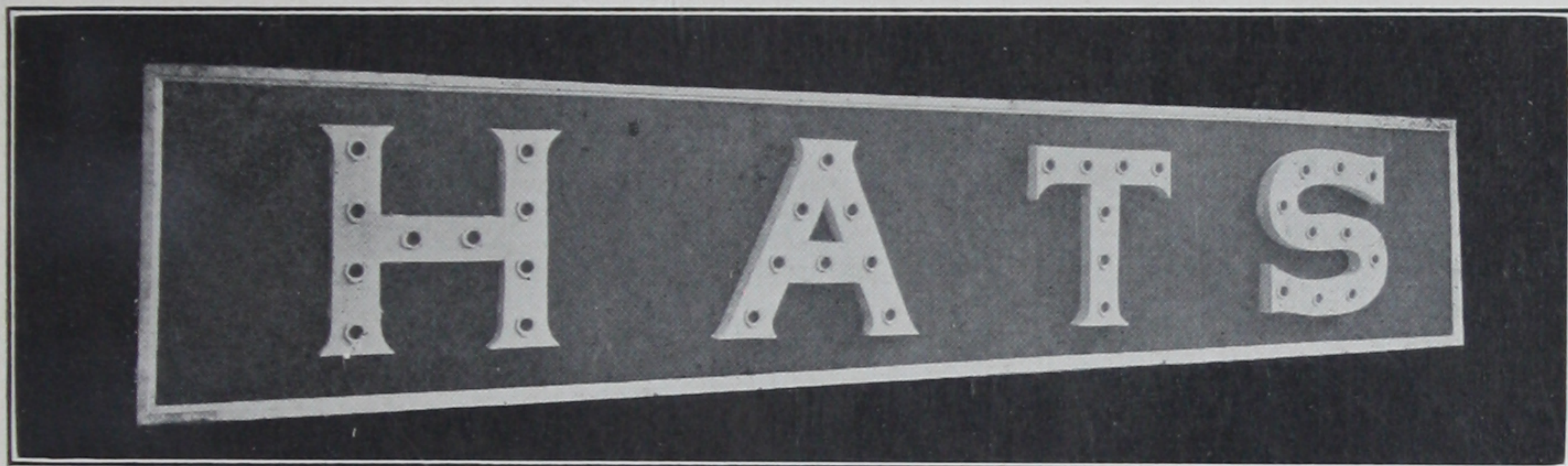


Fig. 3

As the sign looks when the faces of the letters are locked in place.

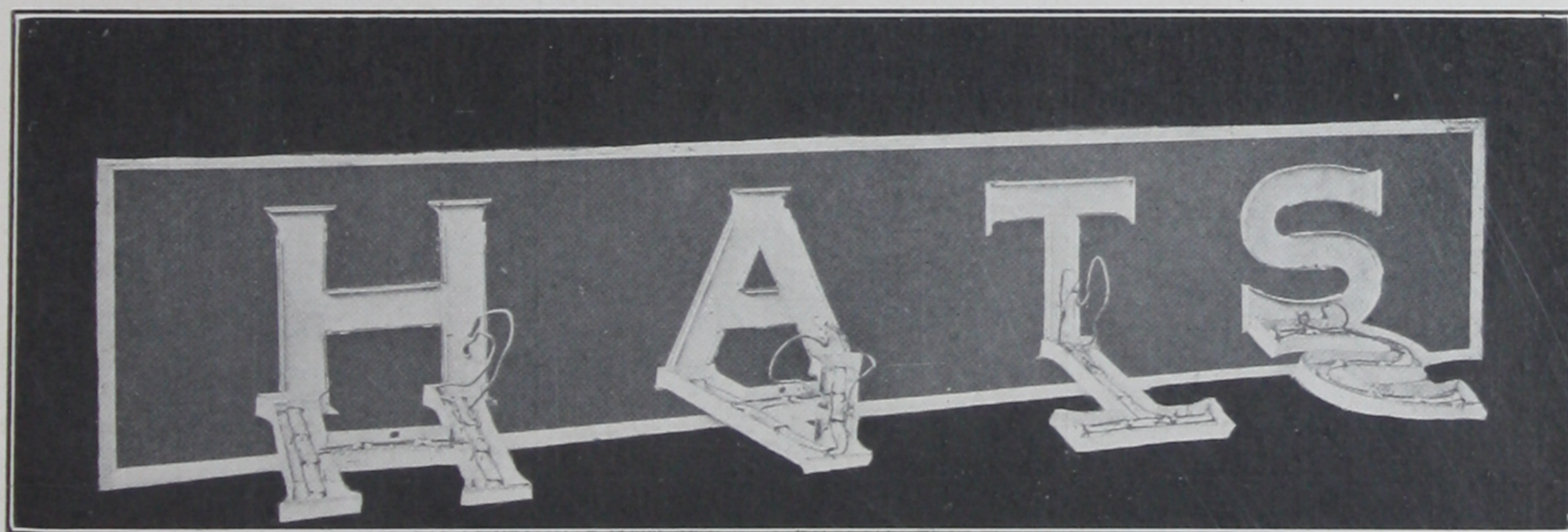


Fig. 4

As the sign looks when the faces are removed to permit of inspection or repair. The Removable-Face Letter is without doubt the most signal advance in the modern construction of electric signs.



possible defects. Where the letter is soldered to the face of the sign, as is usually done by others, it is quite an expensive job to unsolder and repair same while the sign remains in the air, and frequently it is necessary to take same down entirely for repairs. With our style of letters it is all very simple and easy.

### Our Patent Receptacle

Nothing has given more trouble in the past than the use of cheap receptacles in electric signs. An electric sign, being subject to the elements, should consist only of waterproof material and we have, therefore, developed our waterproof receptacle along these lines. They have to-day attained *first place* among sign receptacles, and have contributed largely to make our signs famous.

### Number of Lamps Used in Outlining Letters

One of the greatest troubles with cheap signs, made by inexperienced makers, is that the lamps are not properly placed. Our signs are better outlined, with a fewer number of lamps in proportion, than any other.

### Cost

The cost of block-letter signs varies quite as much as their size and shape, and for that reason only general figures may be given here.

Code Word	Size of Letters	List of Price
		Complete Cost of sign per letter
LECTRA.....	12 inches tall	\$10.00
LICTRA .....	14    "    "	12.00
ELAC .....	18    "    "	15.00
ALAC .....	20    "    "	18.00
ELEC .....	24    "    "	20.00
ILIC .....	30    "    "	22.00
ALIC.....	36    "    "	24.00
ALEC .....	48    "    "	30.00

*We furnish cheerfully sketches and estimates, giving detailed information of any type or size or shape of sign, to fit into any conceivable place. Perhaps our artist may offer you some suggestions. Let us help you; it will be a pleasure.*

**Write for our Special List of Discounts**



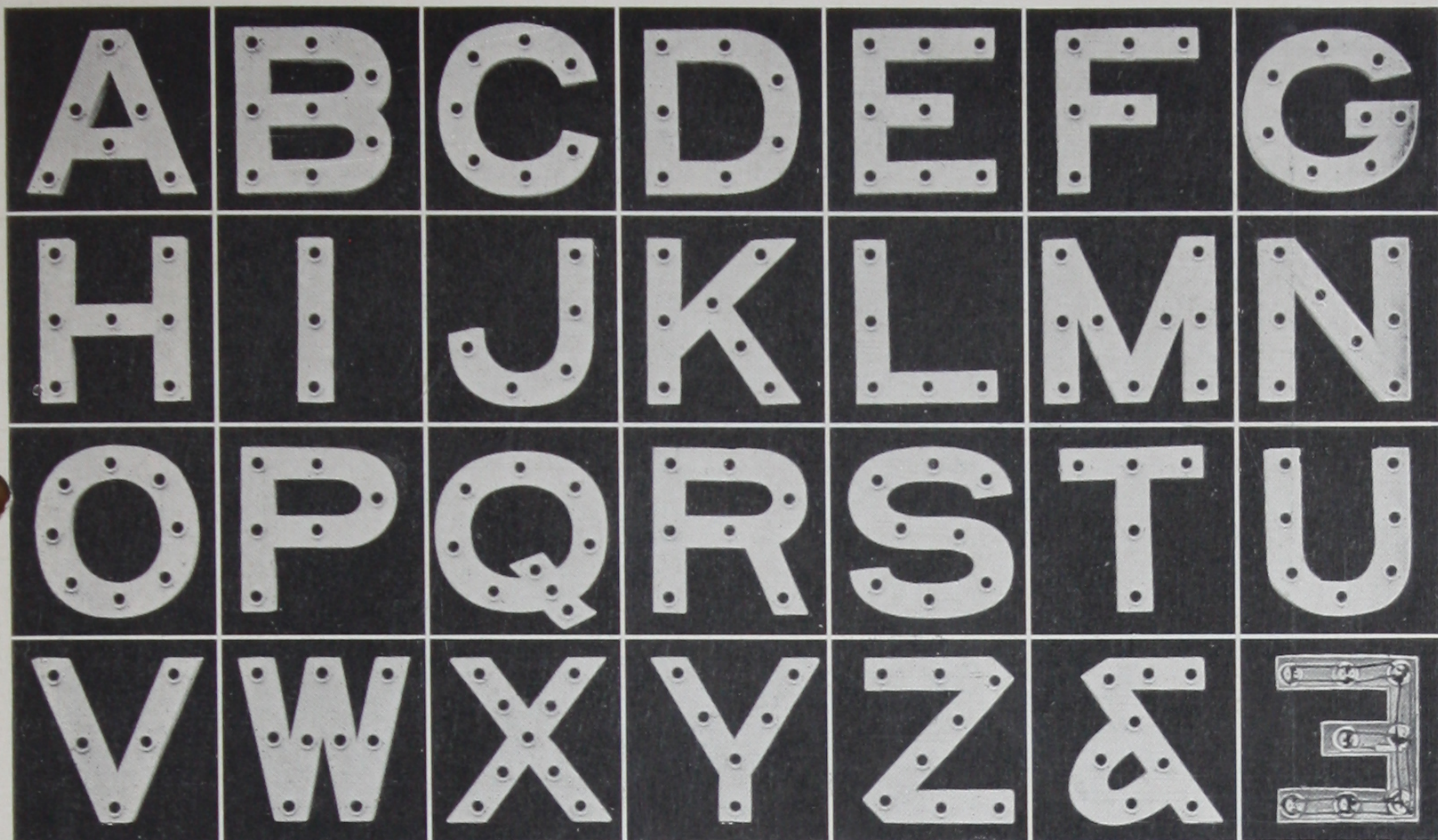


Fig. 5

Our fourteen (14) inch Raised Block Letters as they actually appear on a sign.



Fig. 6

A group of Brooklyn theatres, showing the adoption of our Removable-Face Block Letters for the permanent signs and our Aluminum Attraction Letters for the changeable signs.



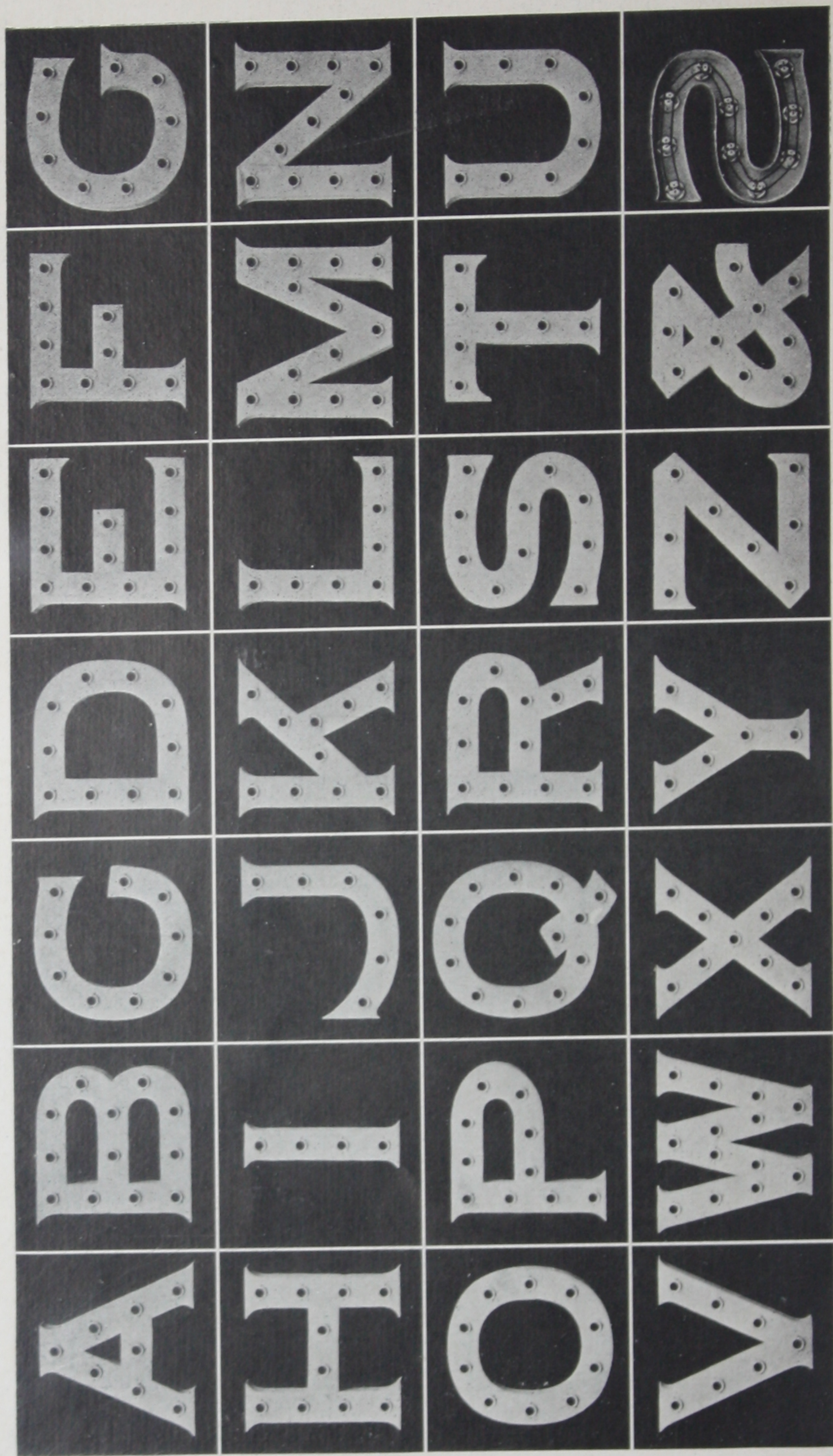


Fig. 7

Our eighteen (18) inch Raised Block Letters as they actually appear on a sign.



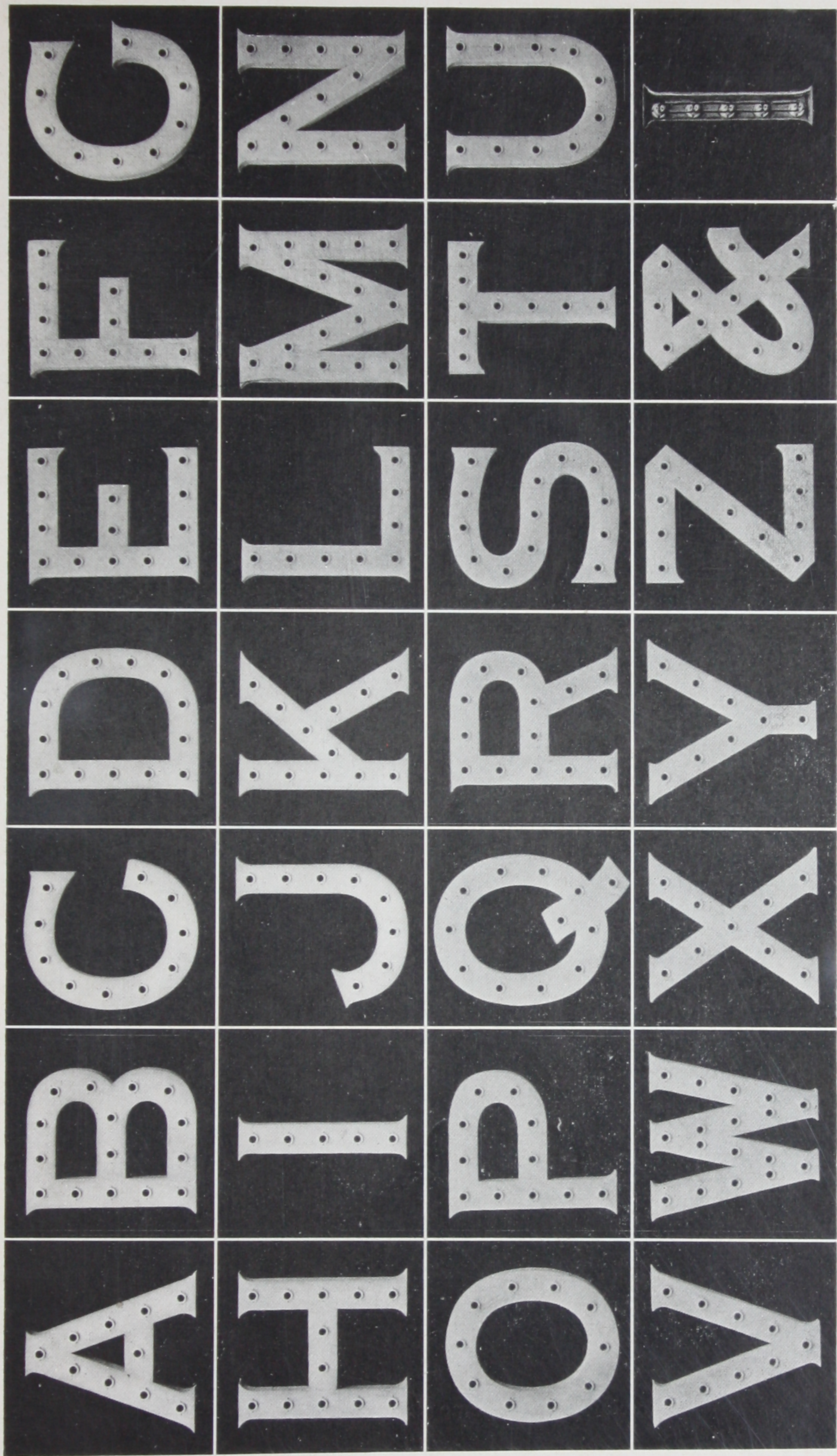


Fig. 8—Our twenty-four (24) inch Raised Block Letters as they actually appear on a sign. They have removable faces and are fitted with our patented waterproof sign receptacles.



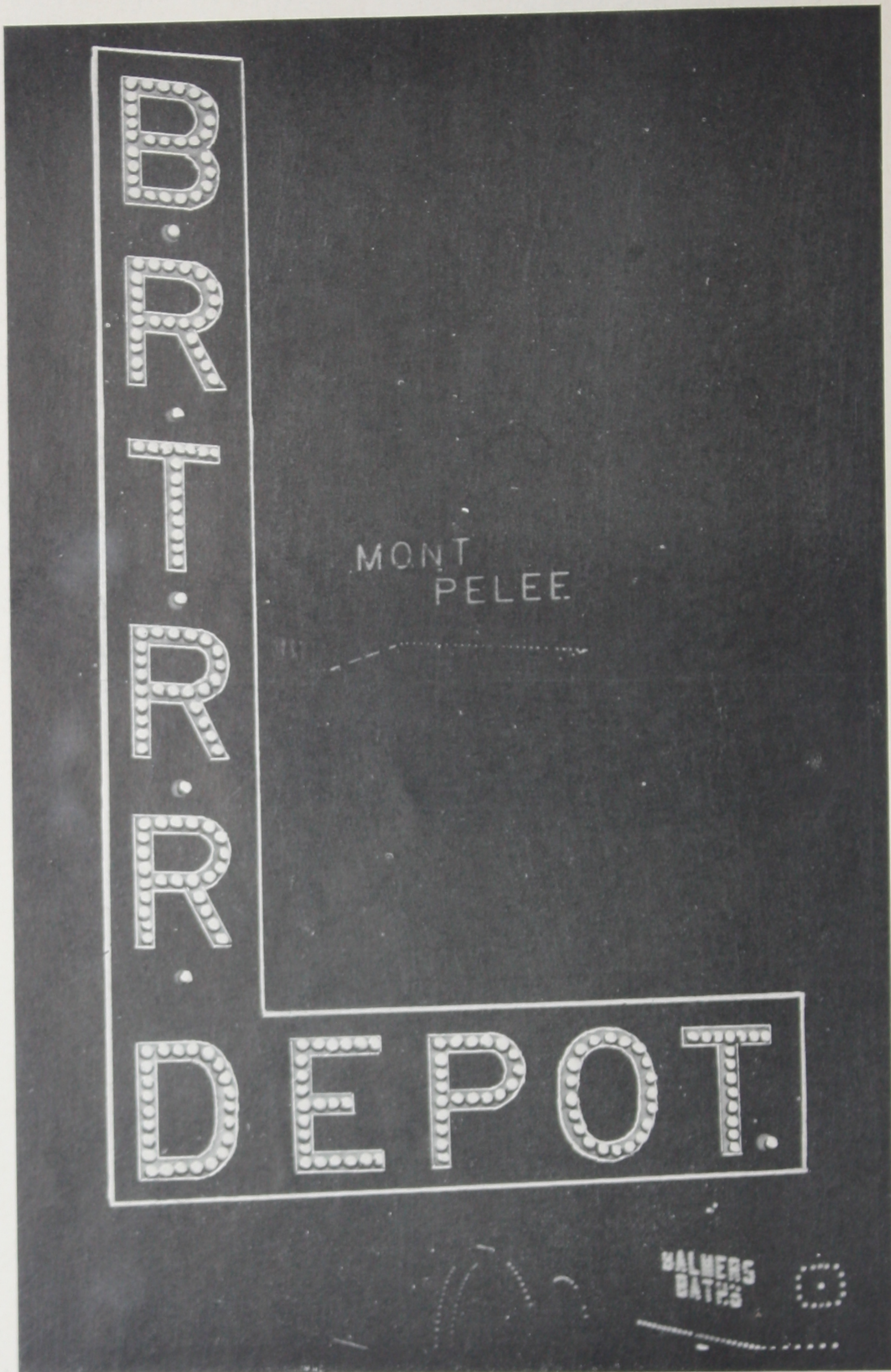


Fig. 9  
Showing the way home after a day at Coney Island.



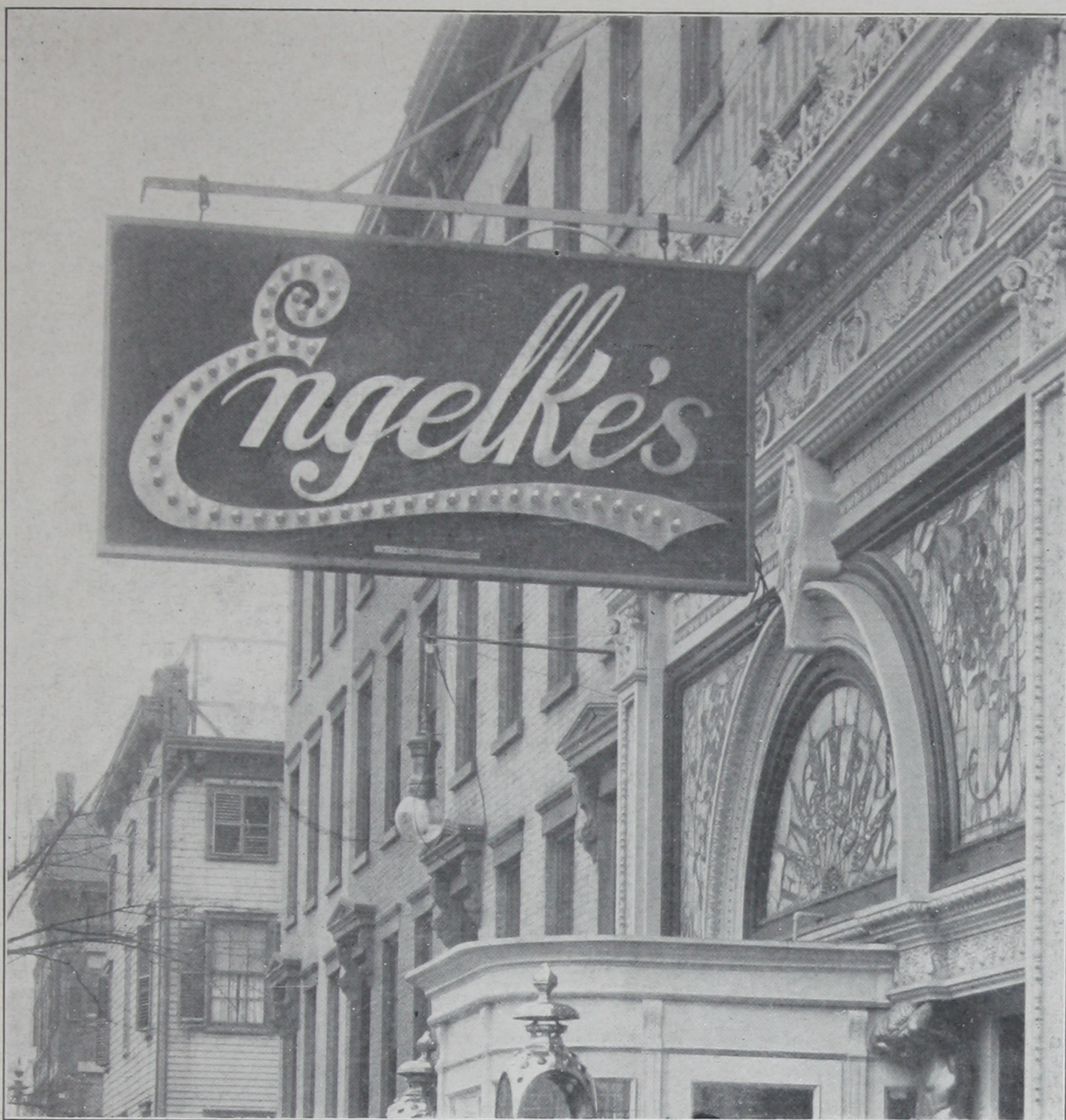


Fig. 10  
A very desirable sign for a café.



Fig. 11  
A sign in front of one of Brooklyn's well-known department stores.



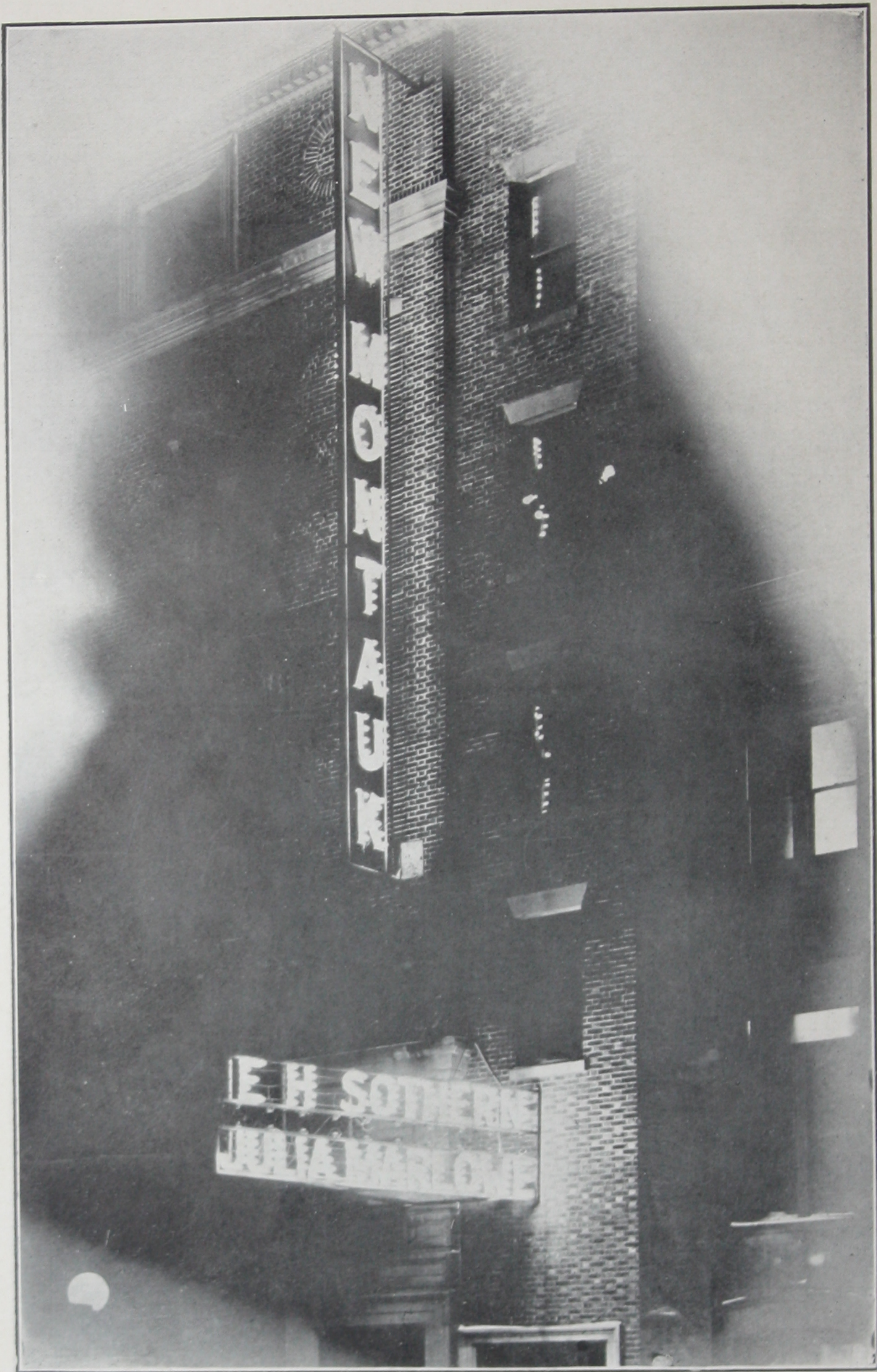


Fig. 12

An impression taken from a very acute angle, showing the remarkable readability of our signs, even when seen sidewise. The vertical sign consists of 24-inch Block Letters and the lower sign uses our 18-inch Aluminum Attraction-Letter s.



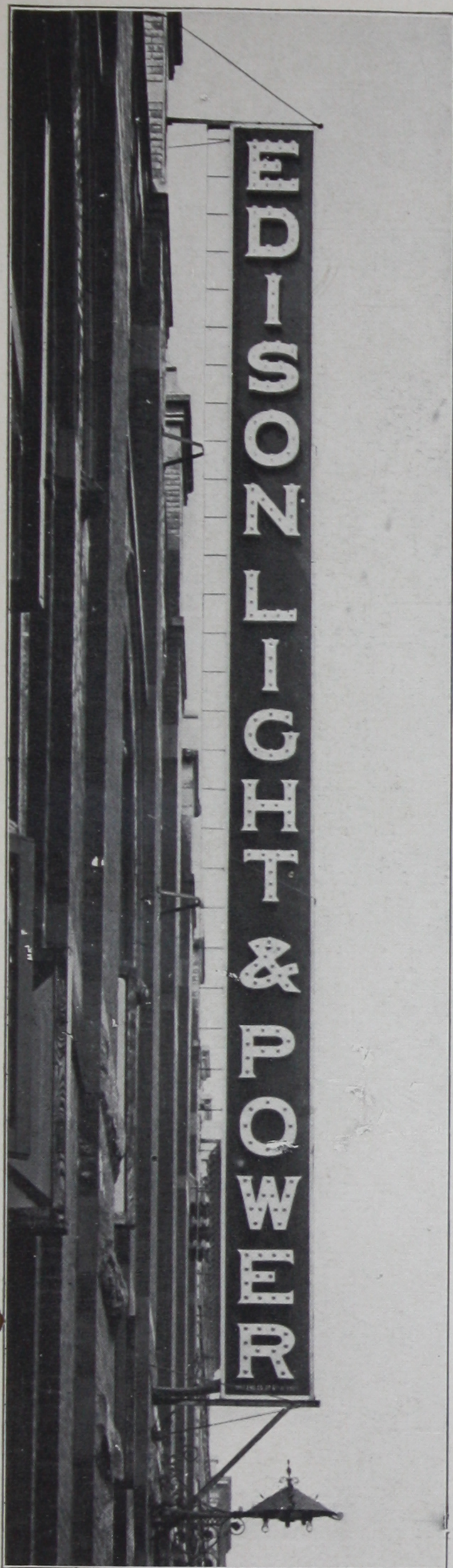


Fig. 13—The Brooklyn company whose wide-awake-management understand the value of modern advertisement.



Fig. 14  
Another Skeleton Box Letter Sign using 4-foot letters.



Fig. 15  
A roof sign that draws the tired bather from miles around.

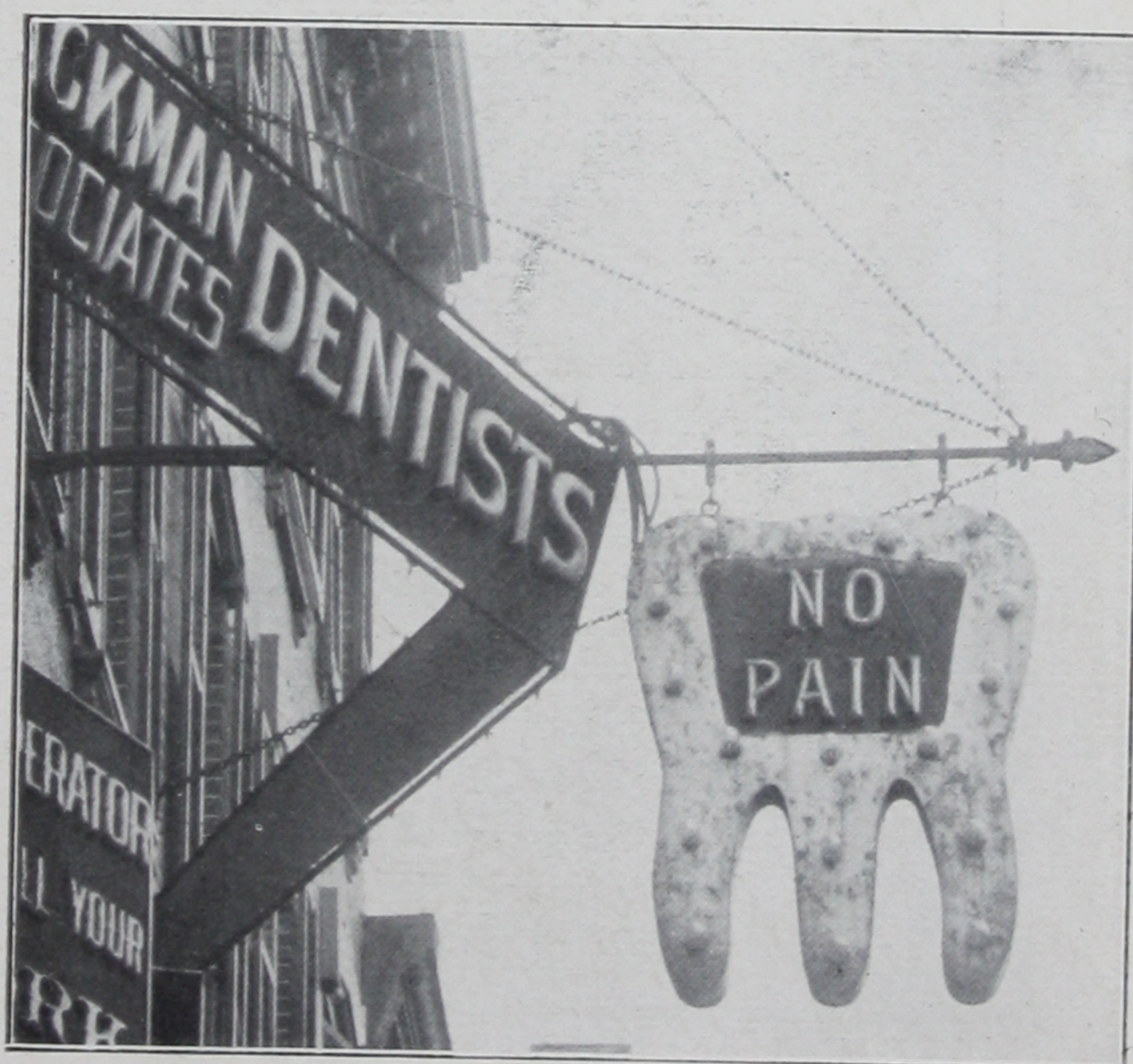


Fig. 16  
Unique and clear.



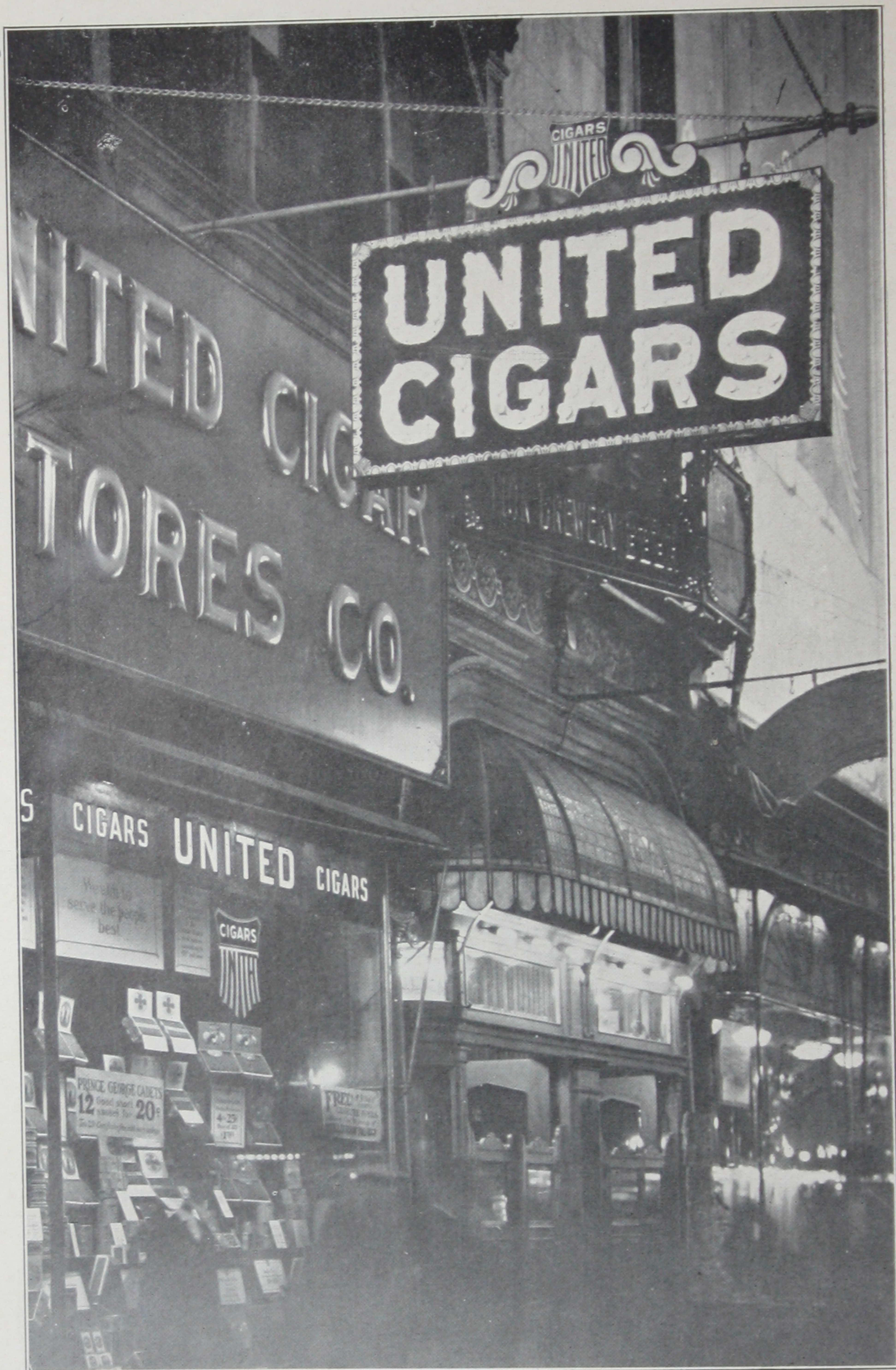


Fig. 17—One of 50 signs recently erected by us in and around Greater New York for the United Cigar Stores Company.



## Panel Signs

Panel Signs are the most universally used electric signs of the day. They are really *the thing* for a small business which cannot afford too large a bill for electric current each month. A panel sign, operated for an average of five hours per night, costs less than \$6.00 per month to operate in most cities, depending, of course, on the electric current rate.

---

**"The Most Popular Electric Sign on the Market"**



Fig. 18

### General Description of Our No. 808 Panel Sign

This panel sign is particularly adapted to a small store where a cheap yet handsome sign is wanted. It contains twelve (12) incandescent lights on each side, and its parts are interchangeable, so that the name or wording may be changed readily at all times. We furnish either **porcelain enameled** panels or **painted enameled** panels. The frame is made of two halves which interlock, being therefore much neater than the other types. Ornamentations are made of pure zinc of substantial gauge.

*Dimensions*—The over all dimensions of the sign are 63 inches by 33 inches, and the dimensions of the inside of panel are 47 inches by 18 inches.

*This Sign has been adopted by all the large Central Stations for free installation to customers.*



**Size**

As will be seen in the various illustrations of our panel signs, they may be made in any shape and size.

**Panels**

The panels, which are supplied with them, will be worded in any way, with as many words, and in any language desired by the customer. The panels are of two kinds, porcelain enamel and painted enamel. The porcelain enamel is by far the more permanent. The *painted enamel* looks like the *porcelain enamel*, but is not so durable; it is usually used where the central station is lending the sign to a customer, as this kind of panel may be readily repainted should it be desired to use the sign for another customer. The porcelain enamel is more expensive than the painted, as will be seen in the schedule of prices. *We supply either kind, and ask that the customer state explicitly which kind he wants when ordering a panel sign.*

**Appearance and Construction**

Our panel signs are by far the leaders not only in artistic appearance, but in mechanical and electrical construction as well. The two halves interlock, thus making the appearance much neater than other types. The crestings are made of pure zinc of heavy gauge, and are large and substantial as well as ornamental. Our self-locking patented waterproof receptacles are used throughout.

**Accessories for Hanging**

Our accessories for hanging panel signs are also of a high order of excellence, and are entirely dipped galvanized, so as to prevent rusting. For this reason one never sees our signs looking rusty and weather-beaten. The wall-plate is made so that the outrigger holding the sign may be swung in and out from the building.



**The Panels in all Our Panel  
Signs Are  
Readily Interchangeable**

thing different from these illustrations, you may rest assured that we make it.

This catalogue does not show all of our panel designs, and if you have seen or have in mind any-

**Glass Panels**

Not only do we furnish either porcelain or painted enamel panels, but we also furnish glass panels for any of our panel signs.

Though slightly more costly, glass panels with gold letters make a very handsome showing.

**Consignment Offer**

We make an offer to any central station throughout the country, to ship them one of our style No. 808 panel signs, or any other style, if preferred, on consignment, free of all cost to them, to be placed on exhibition in their show-rooms for demonstration to their customers.

---

We make special offers to Central Stations on quantity orders

---

**All the large Central Stations throughout the country have  
adopted the FREE-SIGN policy. It pays.**





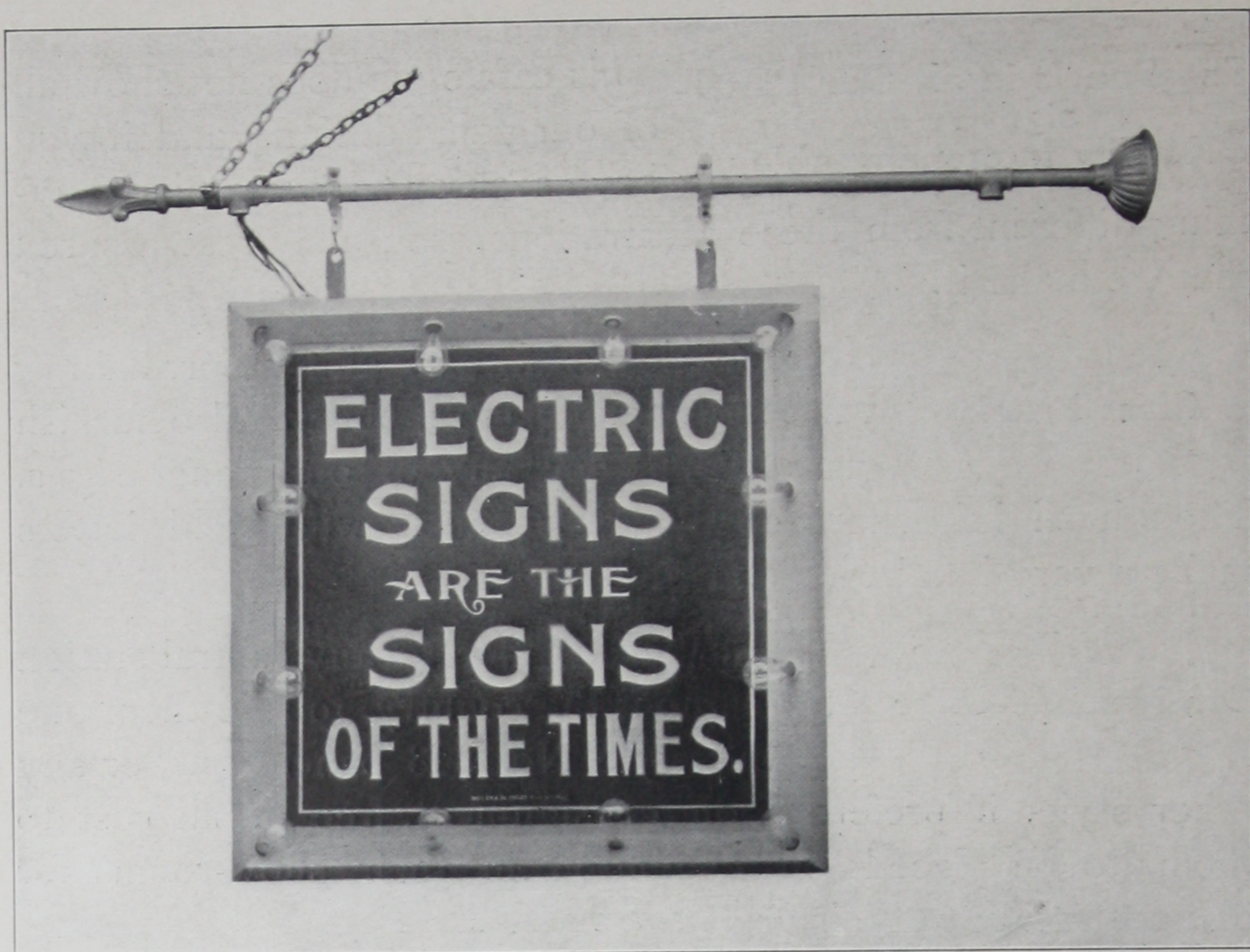


Fig. 19—Our Style 101 Panel Sign.

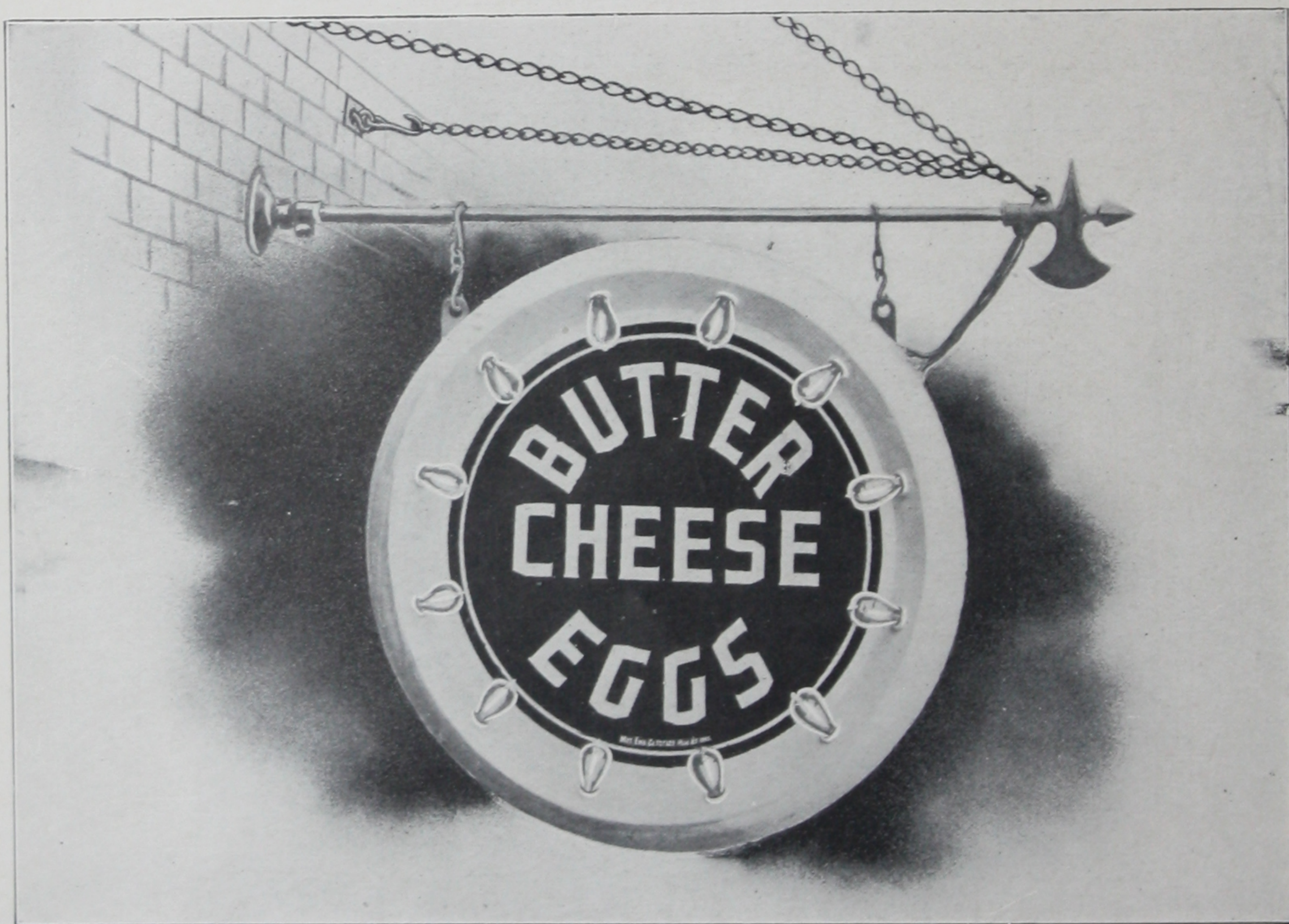


Fig. 20—Our Style 202 Panel Sign.





Fig. 21—Our Style 404 Panel Sign.



Fig. 22

Our Style 1100 Panel Sign, which promises to become as popular as our Style 808.





Fig. 23

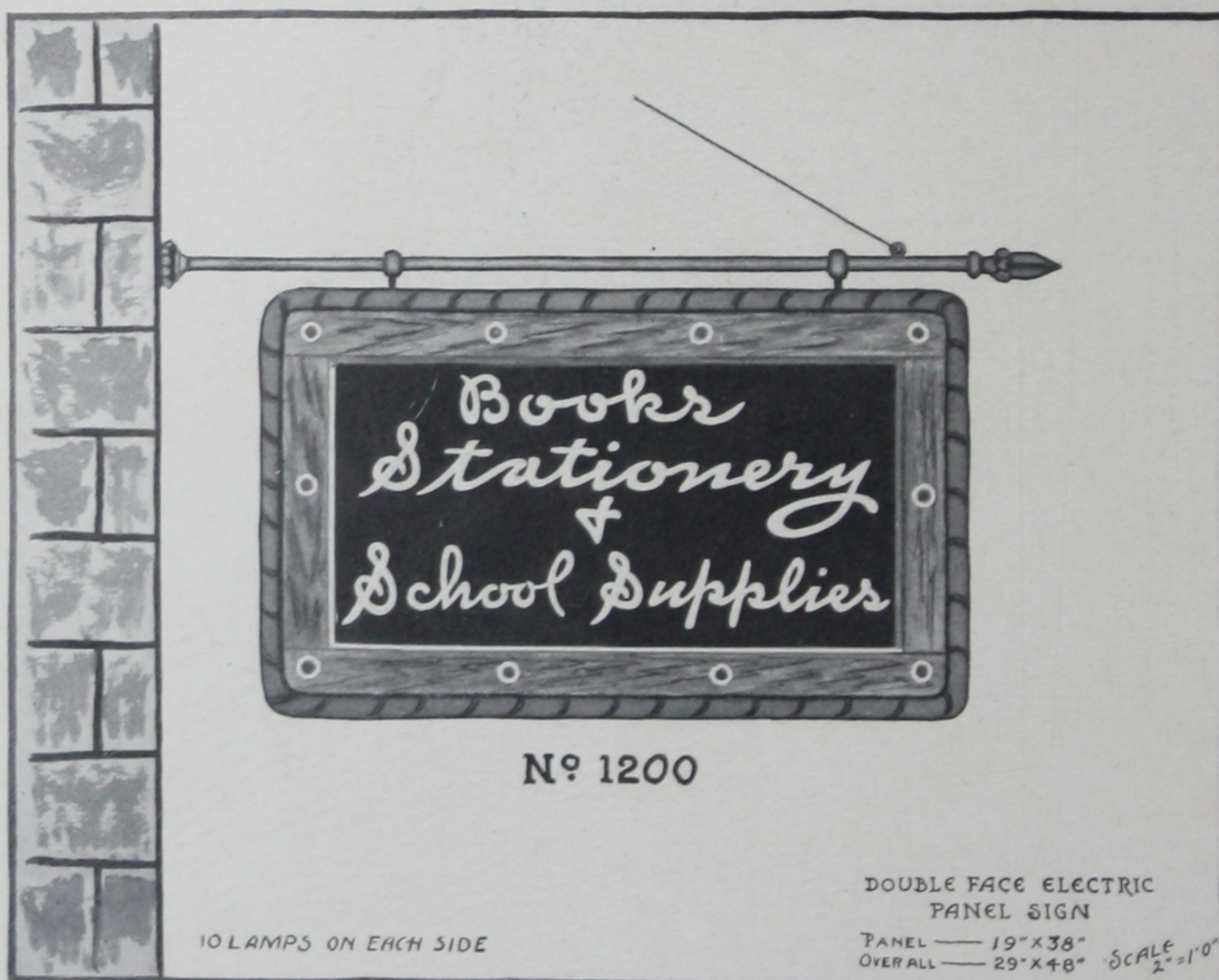


Fig. 24





Fig. 25—No. 2000. Double-face Electric Sign 13 Lamps on each side.  
26 Lamps on both sides. Mortar 31 in. high. Panel for name, 1x5 ft.



Fig. 26





Fig. 27—No. 2100. Double-face Electric Sign.  
 27 Lamps on each side. Lamps in letters not included. 54 Lamps on both sides.  
 4 ft. 2½ in. high, 7 ft. 2 in. wide.



Fig. 28—No. 1900. Double-face Electric Sign.  
 12 Lamps on each side. Diameter of Dial, 36 inches. 24 Lamps on both sides.





Fig. 29

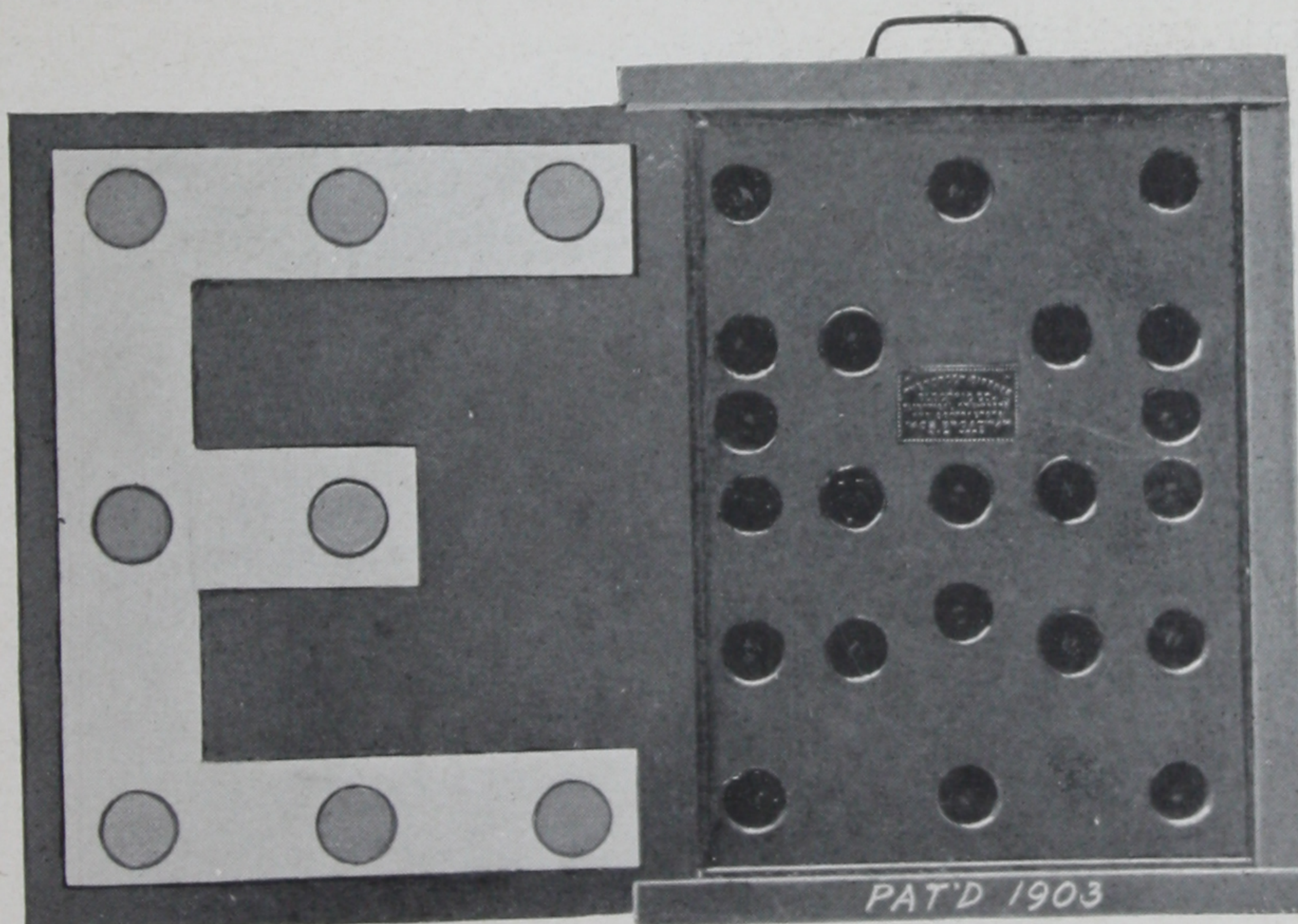


Fig. 30

Our universal monogram letter, can make any letter in the alphabet by changing the letter sheet. The cut shows letter sheet being inserted in monogram. Made in all sizes from 12 inches to 60 inches.



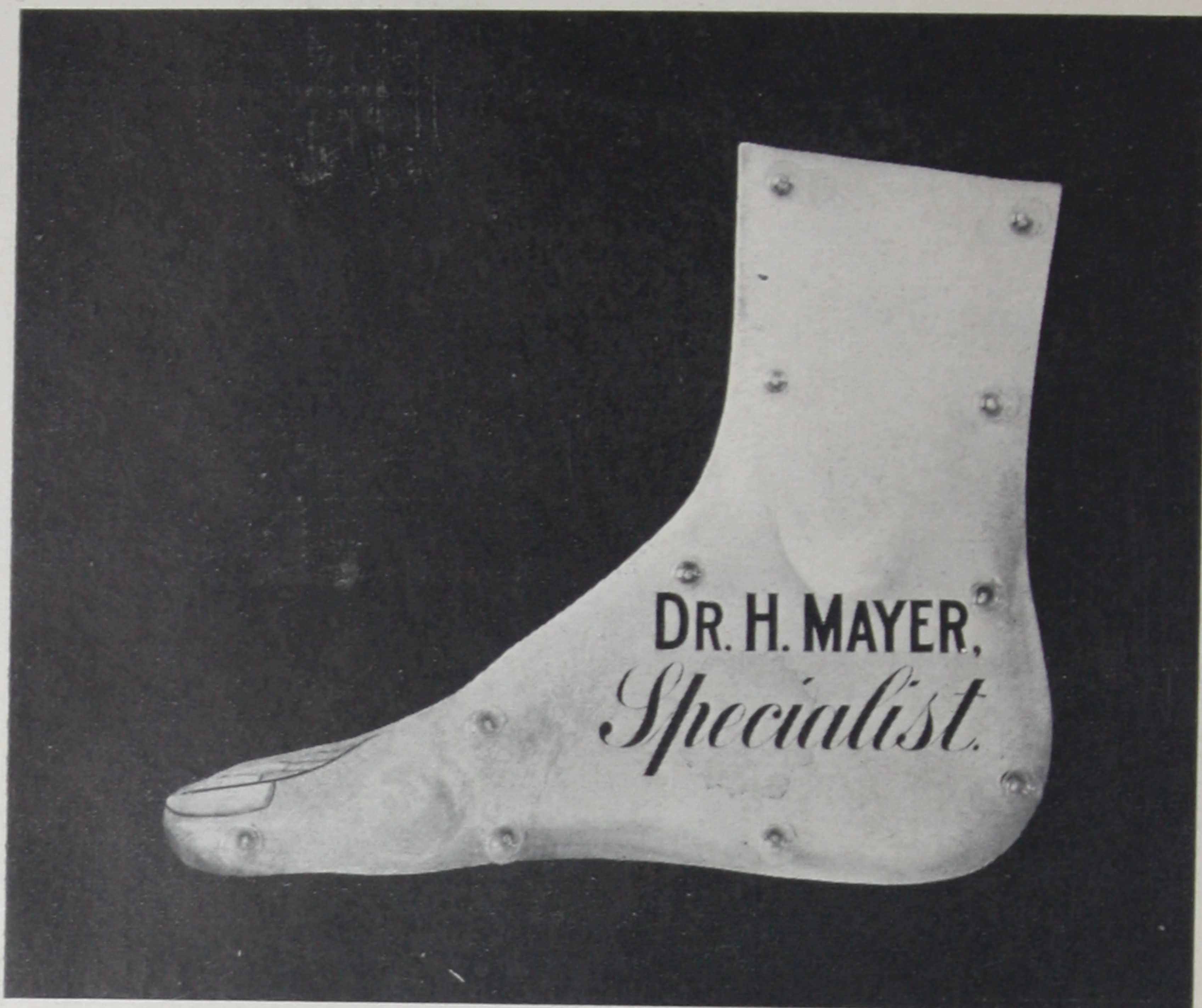


Fig. 31—No. 1800  
Double-face Electric Sign.

11 Lamps on each side.

3 ft. 1 in. high, 3 ft. 10 in. wide.

22 Lamps on both sides.

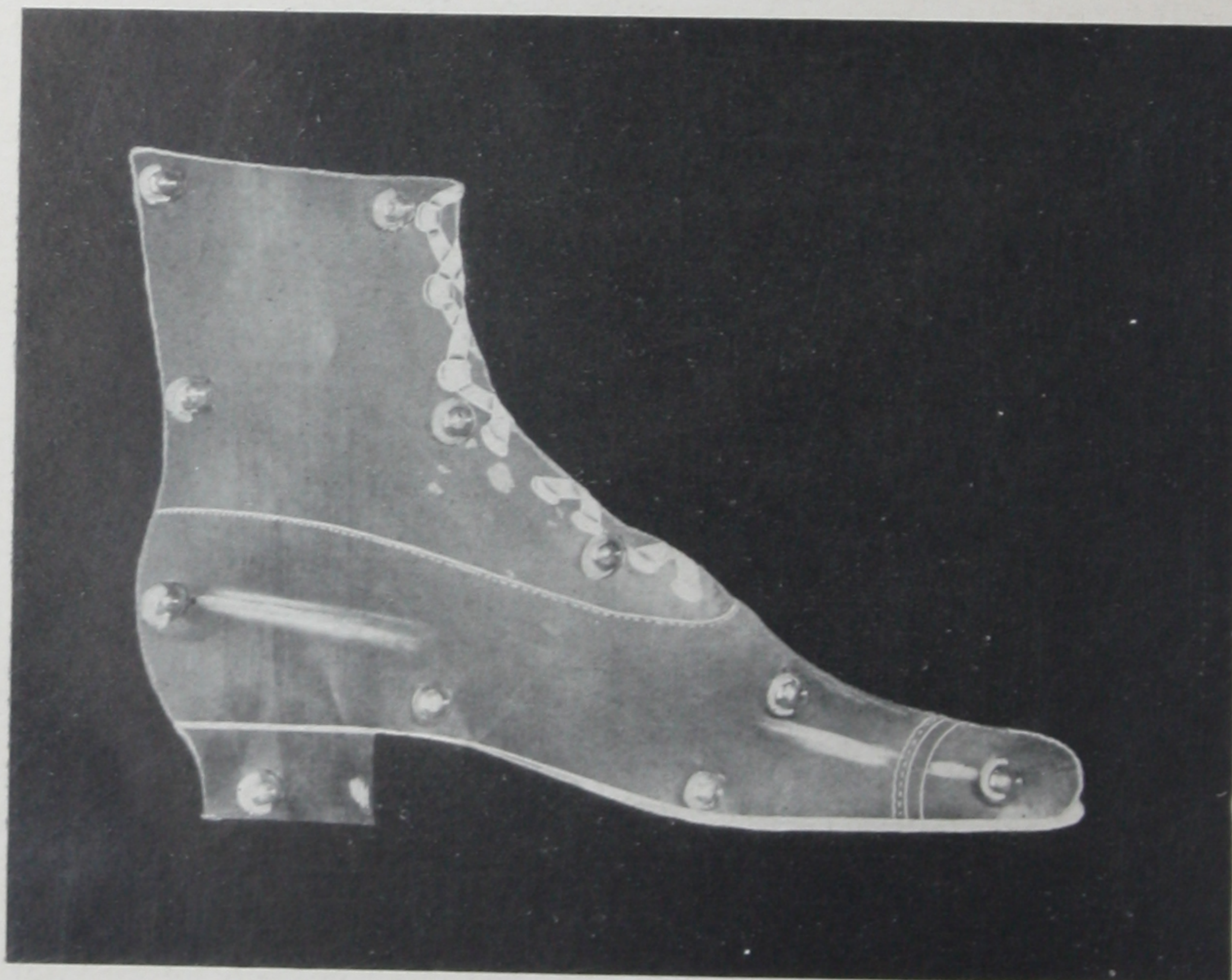


Fig. 32—No. 1700  
Double-face Electric Sign.

11 Lamps on each side.

3 ft. high, 4 ft. 2 in. wide.

22 Lamps on both sides.





Fig. 33—Another Brooklyn department store sign.



Fig. 34—A good sign for a corner building.



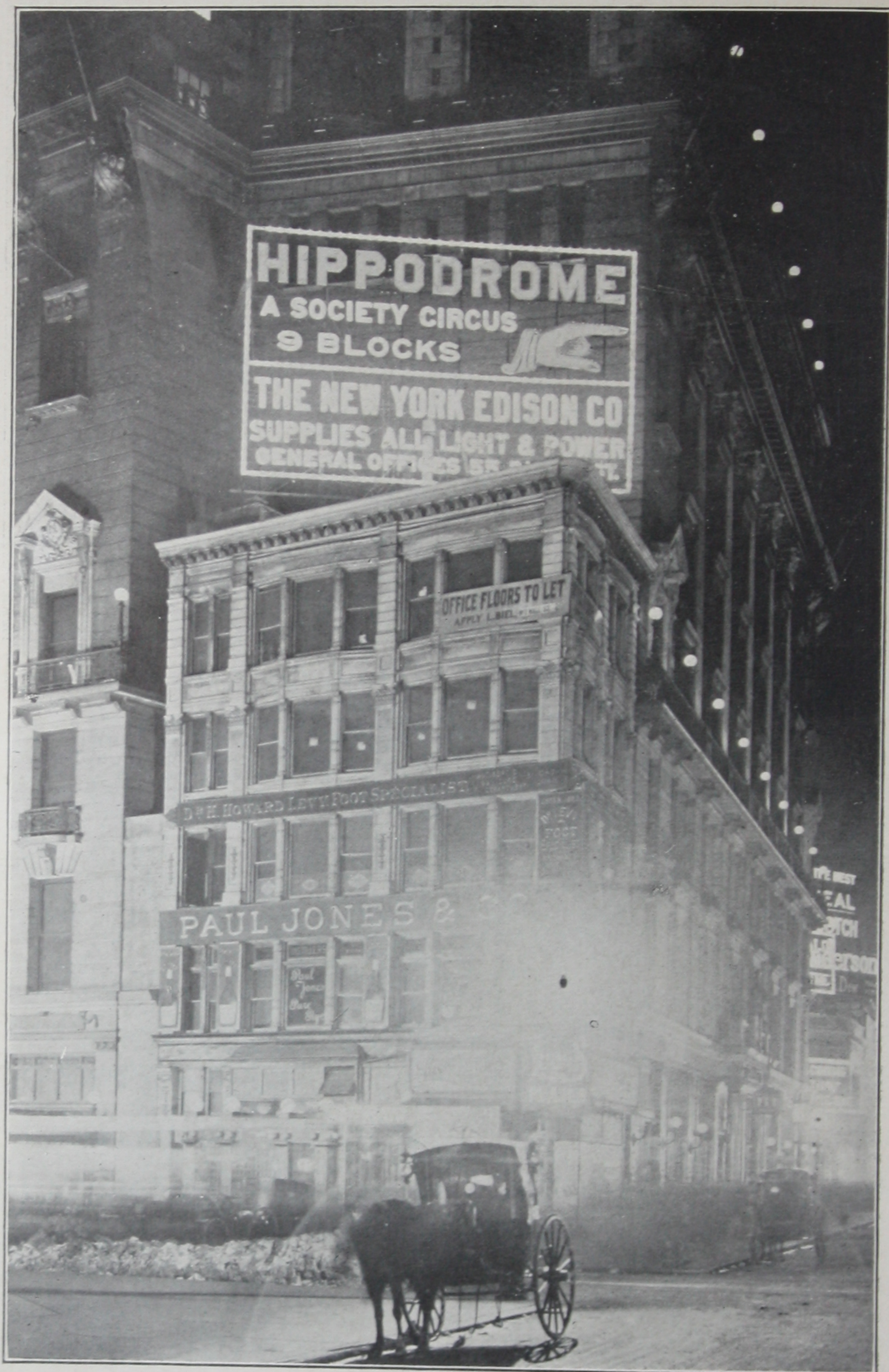


Fig. 35

A remarkable sign on one of Broadway's busiest corners. Its dimensions are 35 ft. x 40 ft., and it contains 1,400 incandescent lamps.



## Skeleton Roof Signs

### Size and Location

Our fame as constructors of magnificent roof signs is world-wide. Suffice it to say, we make them of any size, be it 6 feet tall or 60 feet tall. Our men go anywhere; put them anywhere. Our engineers see to it that the most perilous job is done safely. We trust that we may serve you as we have served so many others.

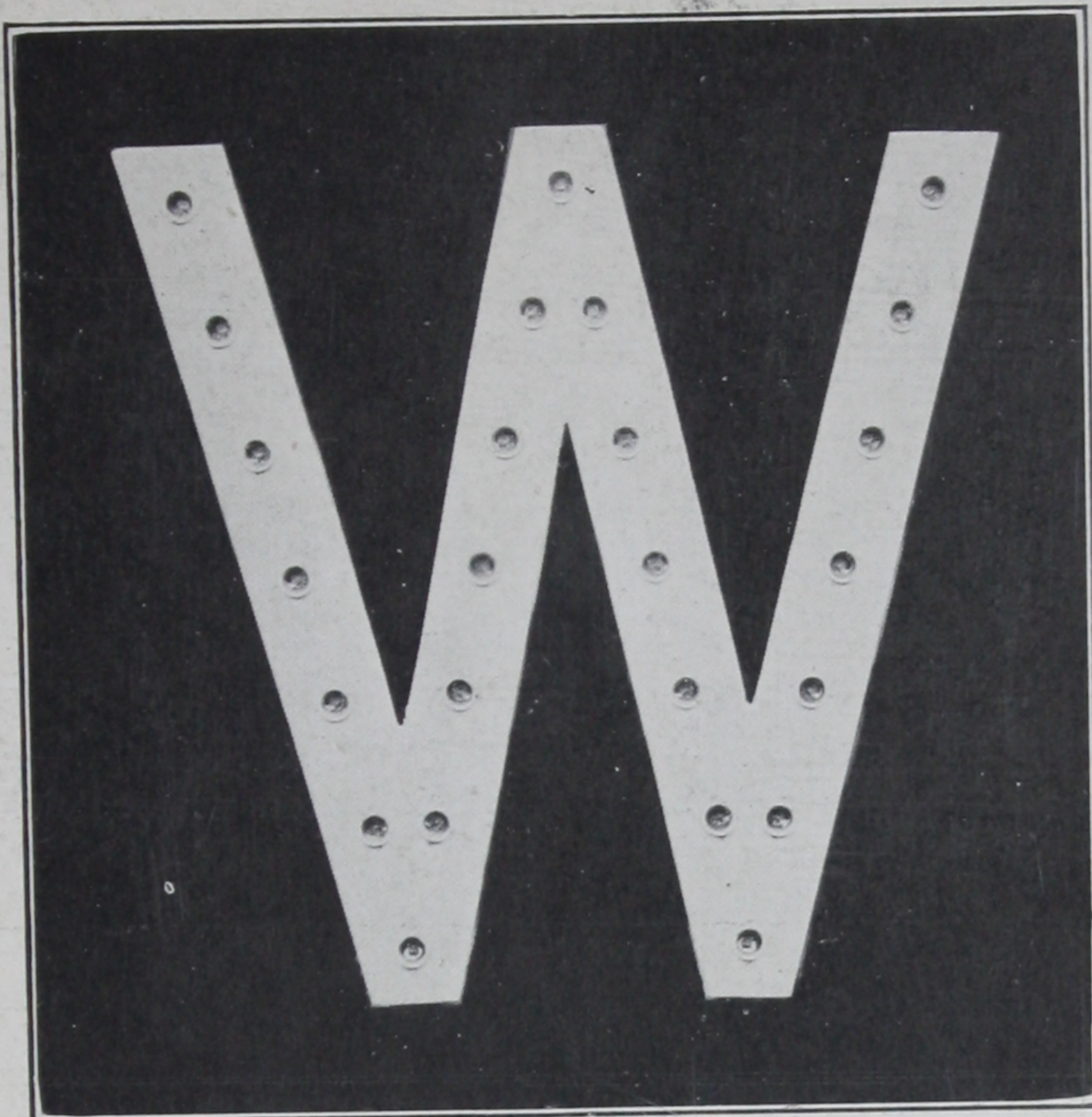


Fig. 36

Front view of a Skeleton Letter for a roof sign.  
The clear-cut outlines may be noted.

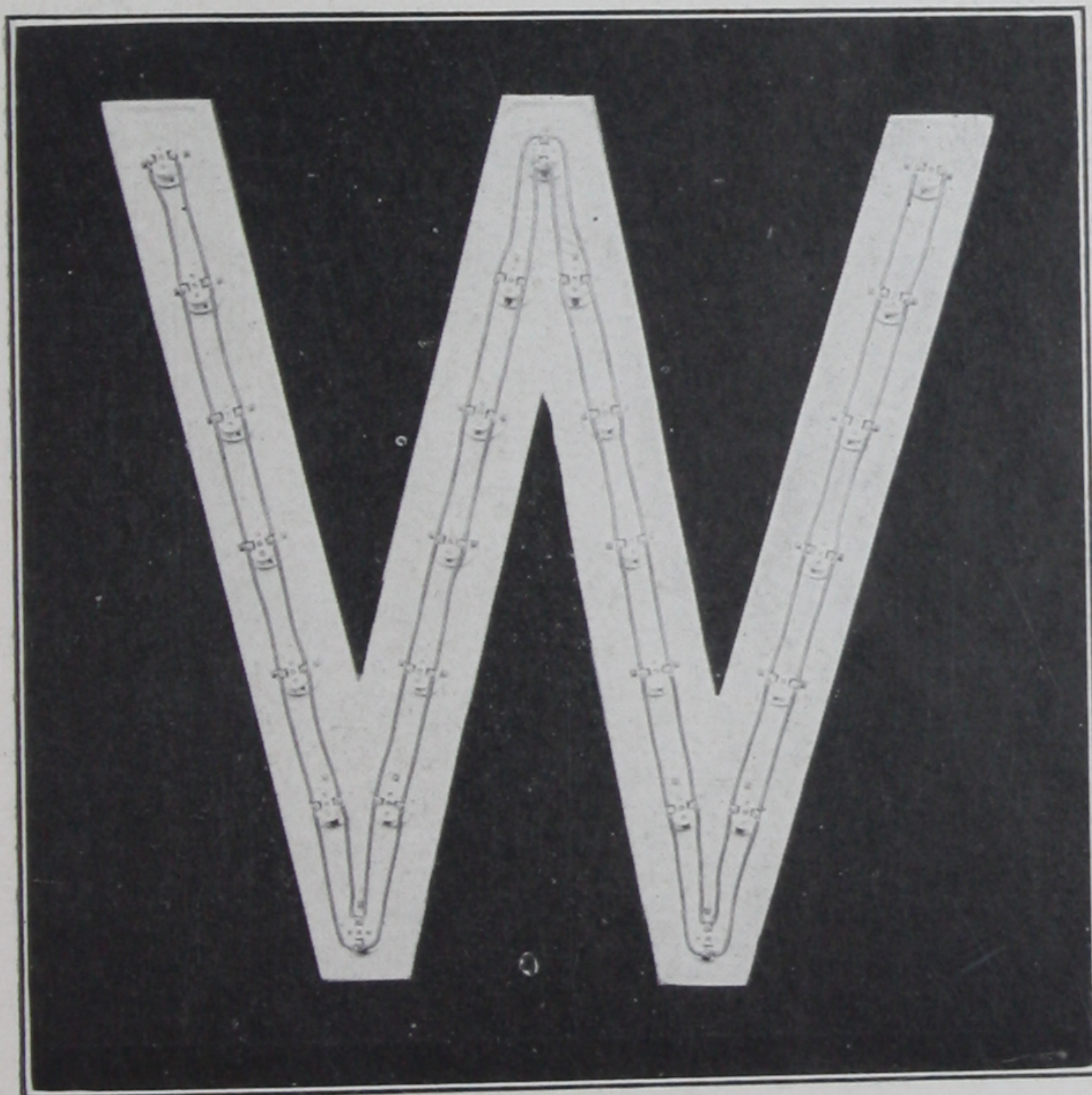


Fig. 37

Rear view of a Skeleton Letter for a roof sign. The letter is held away from the front with nipples and bolts.

### Con- struction

In Figures 36 and 37 will be seen the construction of a typical roof-sign letter, *rolled edges, waterproof receptacles, mechanical strength, easy attachment to frame, and every other advantage* that brains can devise. We can send innumerable illustrations of our roof signs to any one who may be interested. They may be made to illustrate anything.



*L. Alexander*  
OPTICIAN

Fig. 38  
Skeleton Block Letters with concealed wiring.



Fig. 39  
The structure of this enormous sign surpasses anything yet conceived.





Fig. 40

A Good Hotel Sign.

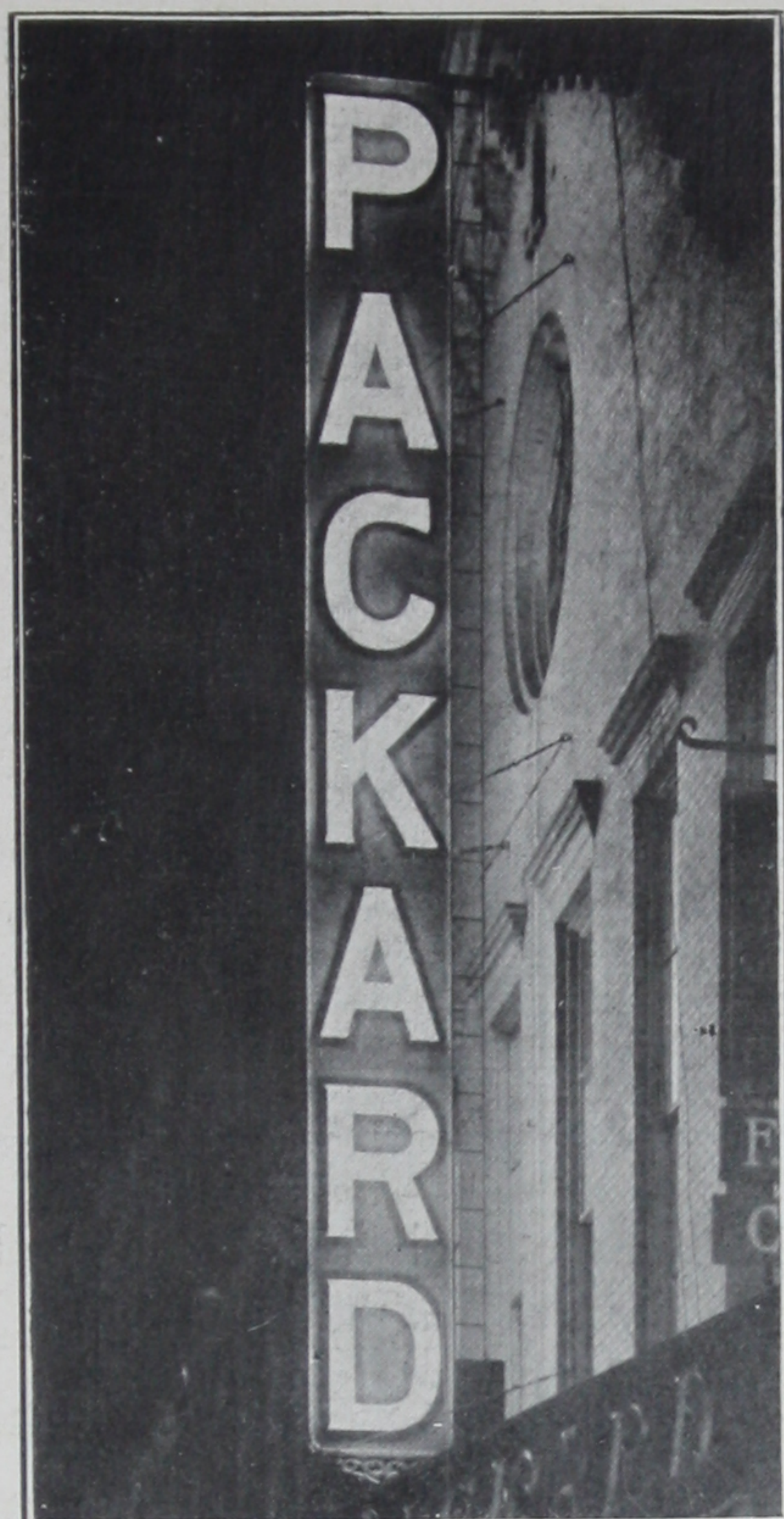


Fig. 41

An attractive Automobile Sign.

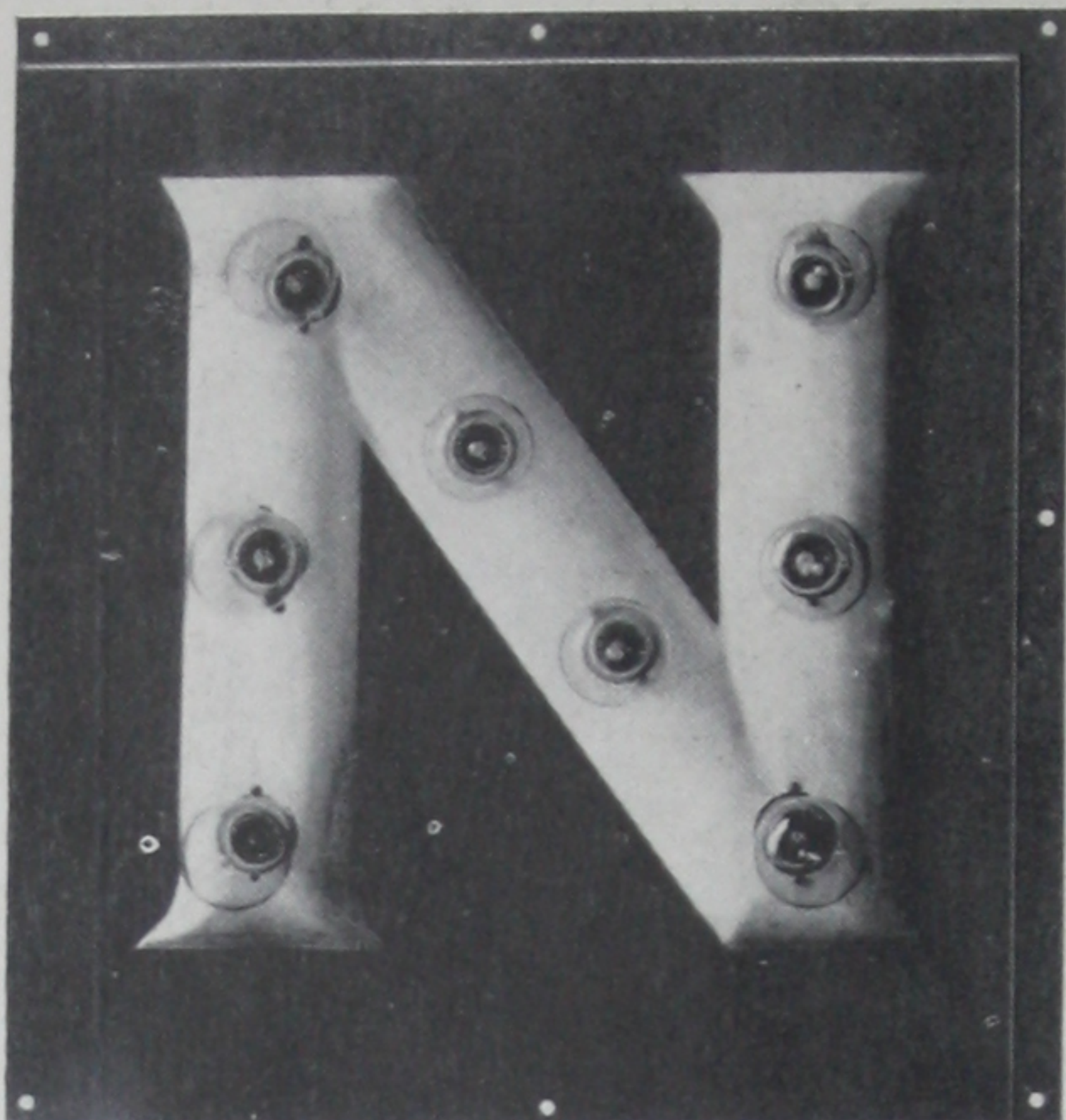


Fig. 42

Remarkable sign built by us in Harrisburg, Pa.  
It contains a waving American flag  
of wonderful beauty.



# The Newest Electric Sign Letter on the Market



Front View of New Letter with Sockets and Lamps

## ABSOLUTELY IMPERISHABLE

**Description** The letter is made of sheet steel pressed out into the desired shape. Socket holes are then punched wherever wanted and the letter is coated with a heavy coat of porcelain enamel in any color desired by the customer.

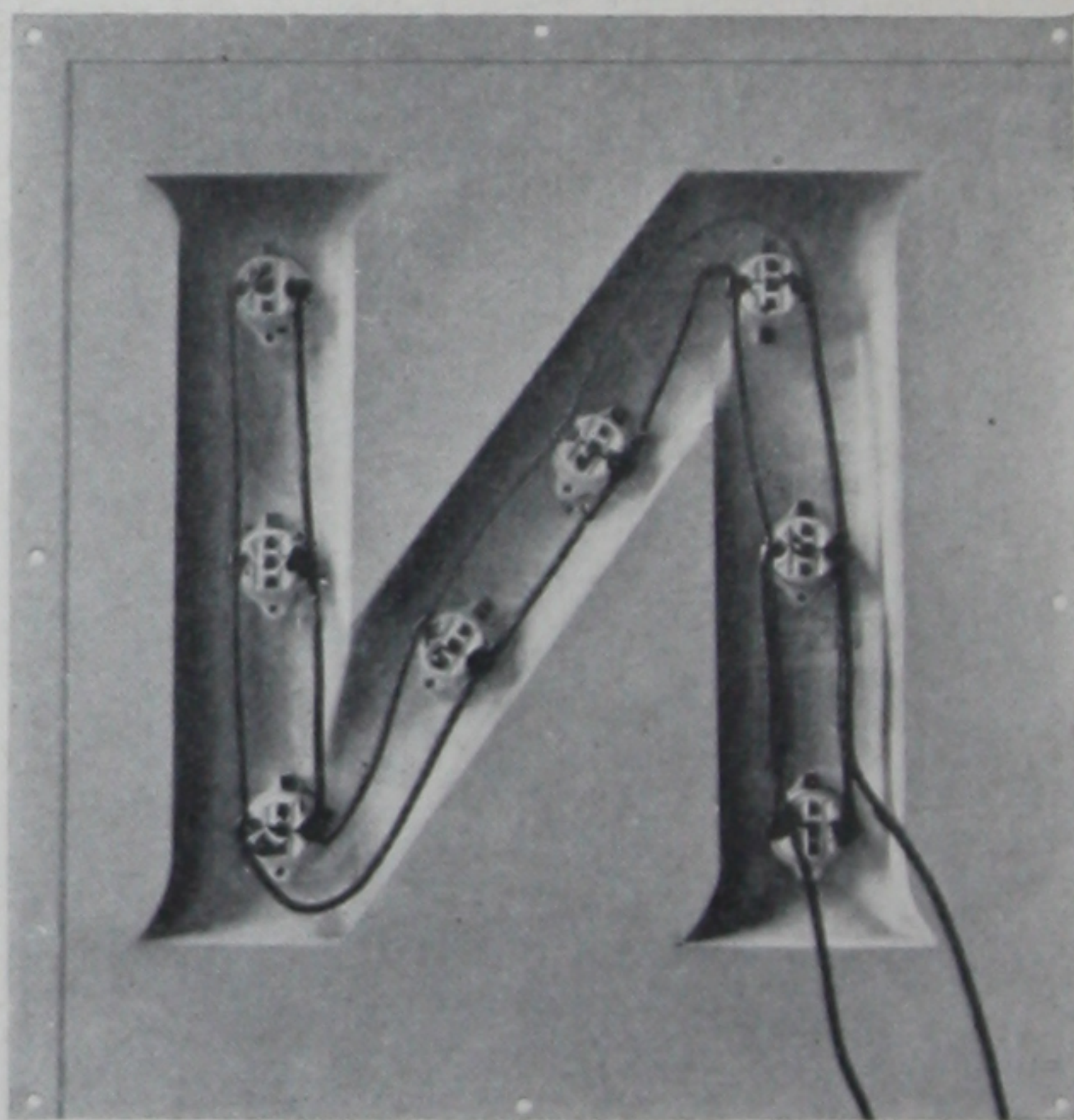
Each letter is a separate and distinct unit and may be used to make up a vertical or horizontal sign. Being *absolutely imperishable* the letters are permanent assets to anyone owning them.

Letters may be used in changeable signs and changed from day to day.

**Selling Offers** **I.** We will sell you a sign made up with these letters. **II.** We will sell you the letters separately with sockets all wired and ready to be made up into a sign, we furnishing sample instructions as to how to do this.

**III.** We will sell you the letters separately without sockets so that your own workmen can complete the work.

**Size** The letters themselves are 16 inches tall and the plate on which they are made is 21 inches wide by 23 inches tall.



Back View of New Letter showing Wiring





Fig. 43

A Combination Electric and Wooden Letter Sign.

## Trough Lighting

It is becoming very popular, at the present time, to outline doorways, etc., with incandescent lights. In order to do this neatly, in a manner which will conceal all wires, etc., we have designed a trough, shown in Figure 43, which, we think,

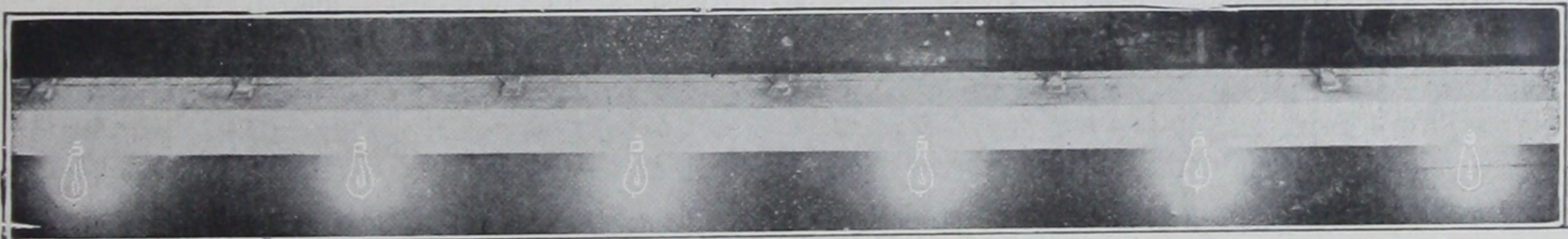


Fig. 44

is the best thing that has yet been brought out in this line. Its extreme cheapness compared with other materials is very attractive. It has a removable back and is therefore far more accessible than other methods.

Code Word	Dimensions	No. of Lights	List Price
TROW . . . . .	2½ in. wide by 1 7⁄8 in. deep	1 per foot	\$1.00 per foot
TRAW . . . . .	2½ in. wide by 1 7⁄8 in. deep	2 per foot	1.20 per foot

*Send for special discount sheet.*



# Reflector Lighting

Of recent years the display billboard advertising concerns have taken up extensively the illumination of these boards at night as well as day. They find that they can get twice as much money for them when thus illuminated, and they have resorted to all forms of reflector lighting. We have done and do this work for the best concerns and can give as an additional recommendation our very low prices. We show in Figure 44 the finest billboard in New York illuminated with our reflectors.

Code Word	Number of Lights	List Price Without outriggers
REFLECTRA . . . . .	1 per foot	\$3.00 per foot
REFLECTRE . . . . .	1 1/2 " "	3.50 " "



Fig. 45

The finest specimen of billboard illumination ever constructed.



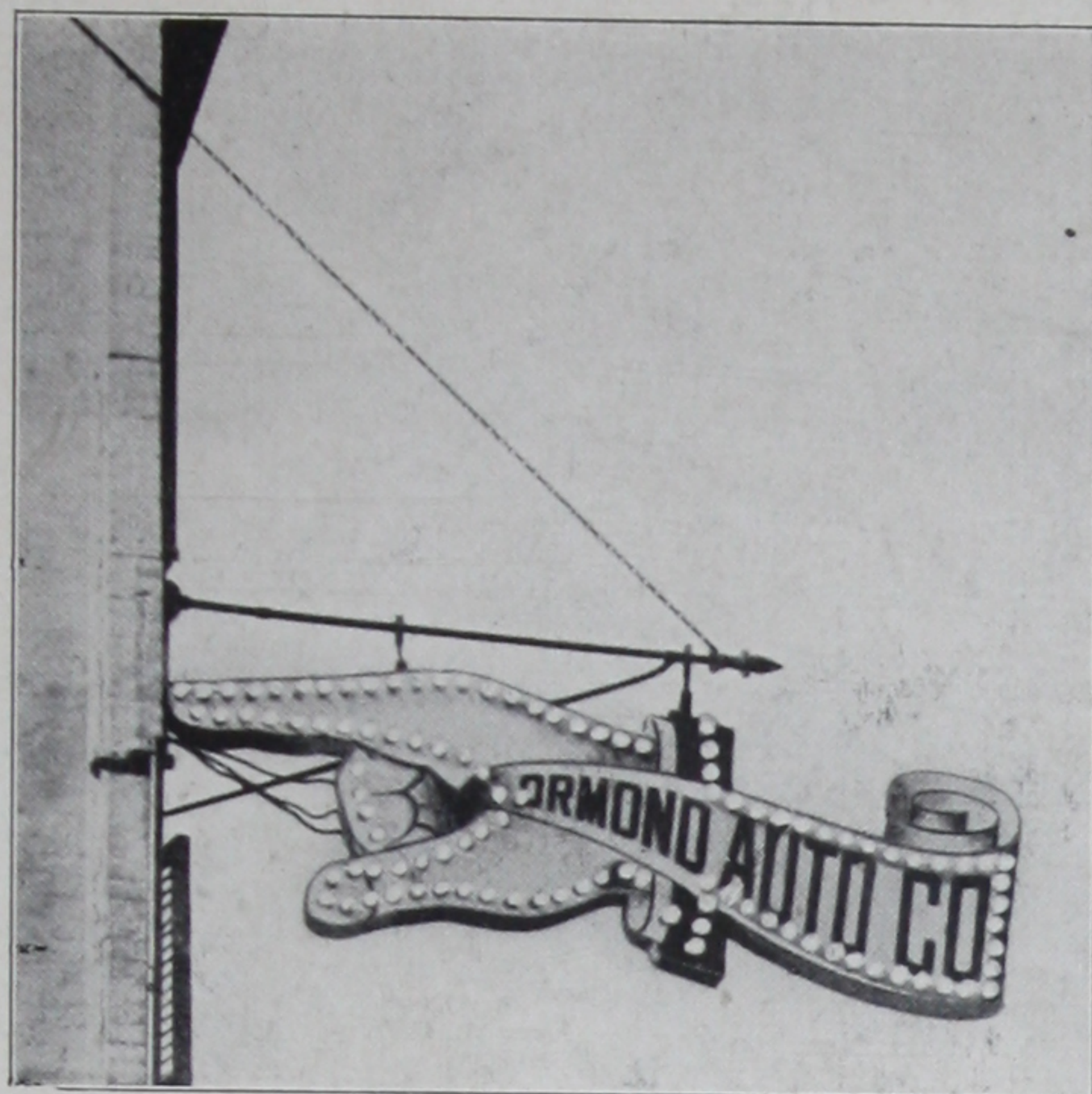


Fig. 46

It points the way at night as well as day.



Fig. 47.

The New Yorkville Casino Sign.

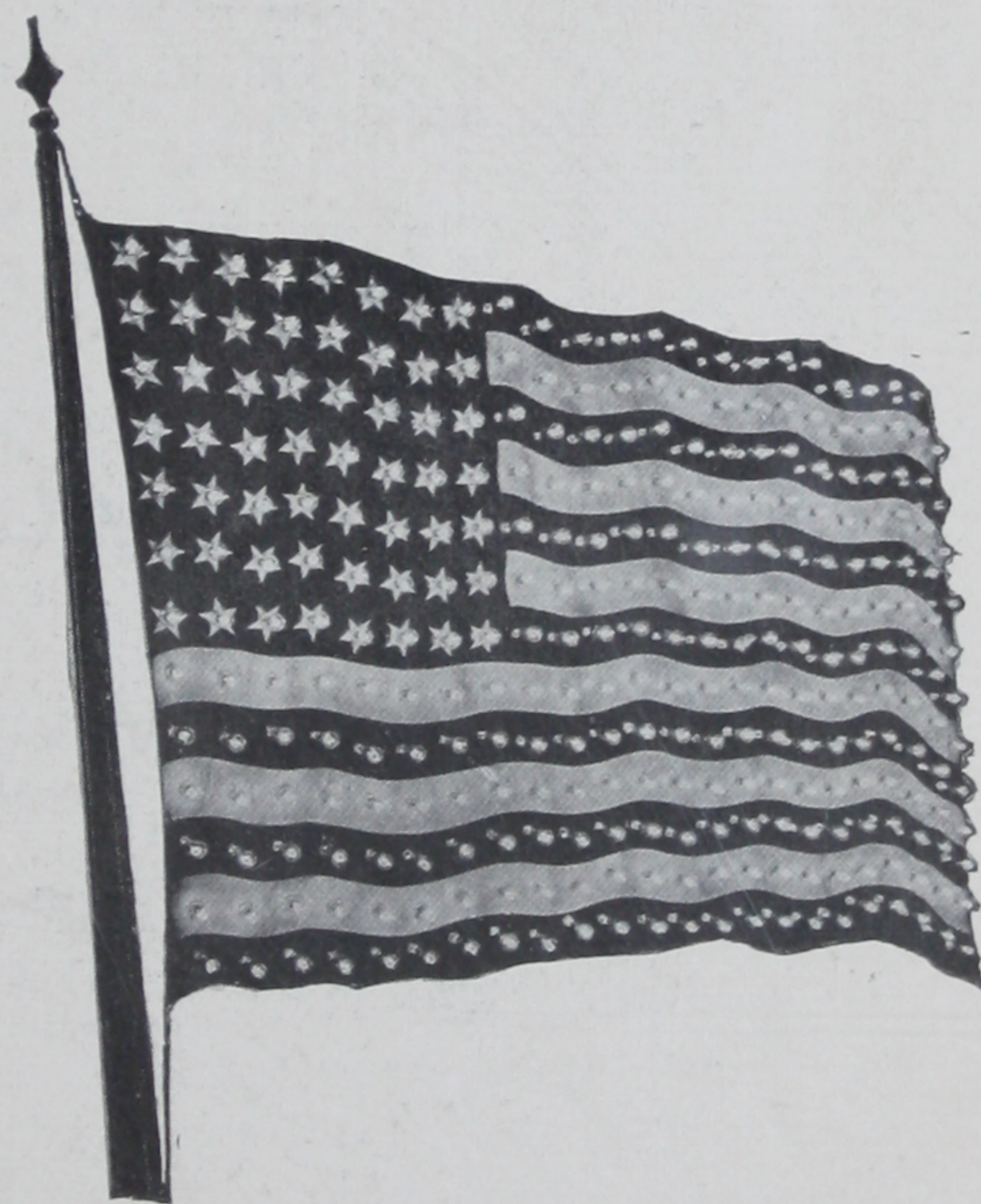


Fig. 48.

An Electric Flag which is made to wave in most realistic manner.



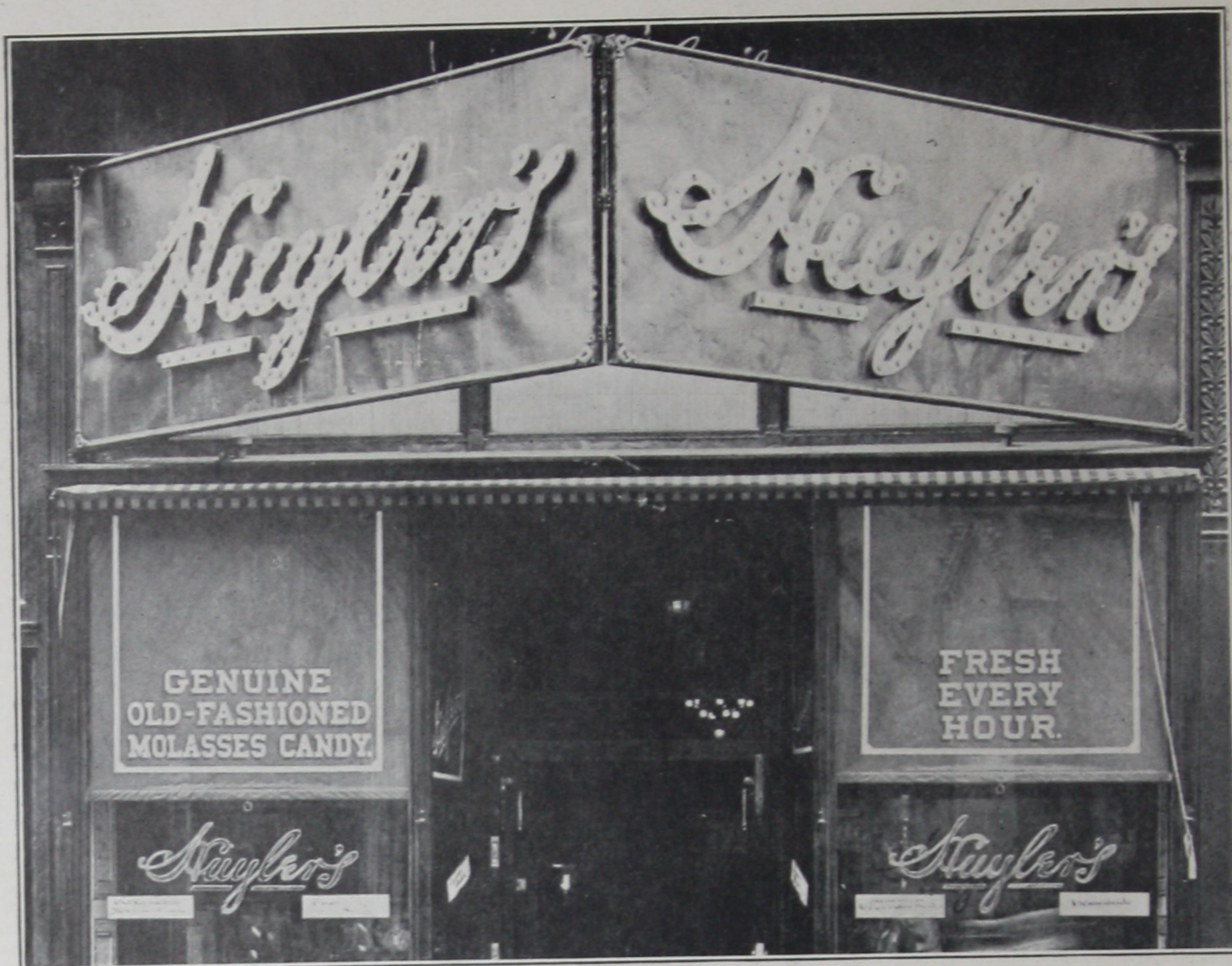


Fig. 49

One of our Latest Broadway, N. Y., Signs.

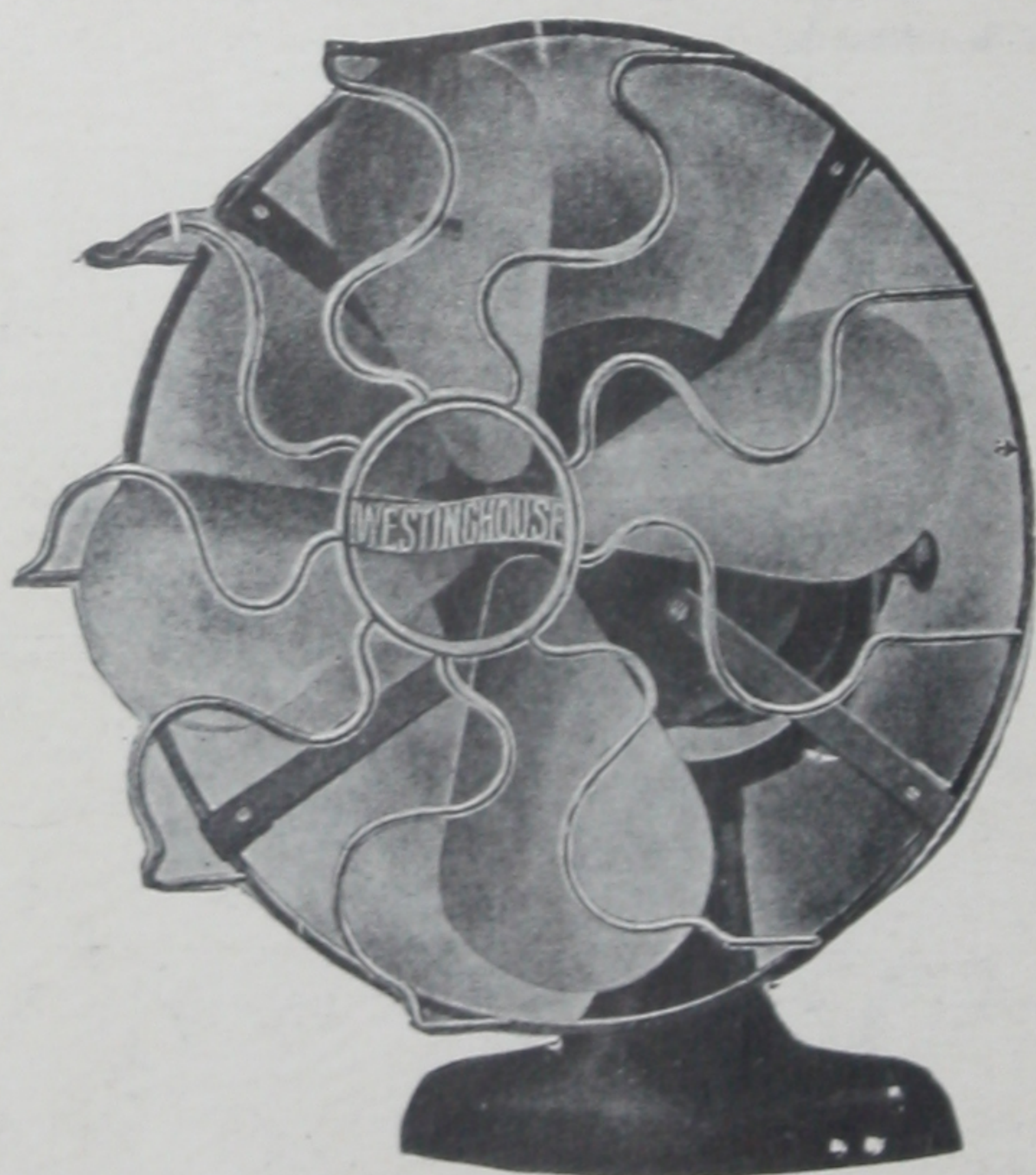


Fig. 50

Westinghouse Desk Fan

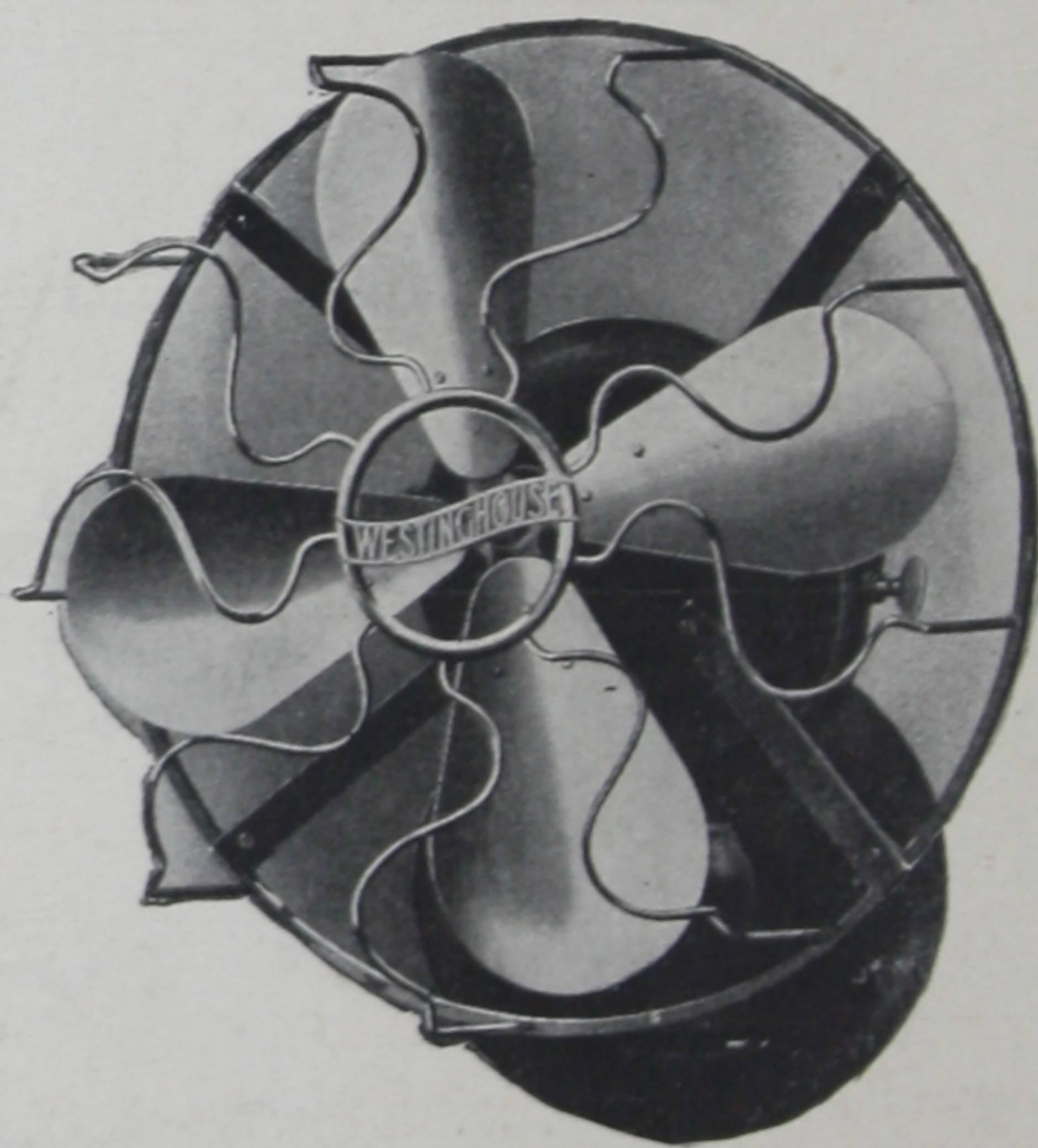


Fig. 51

Westinghouse Wall Fan.





Fig. 52.—The most wonderful Electrical Sign on Broadway. Its fame has been heralded far and wide.

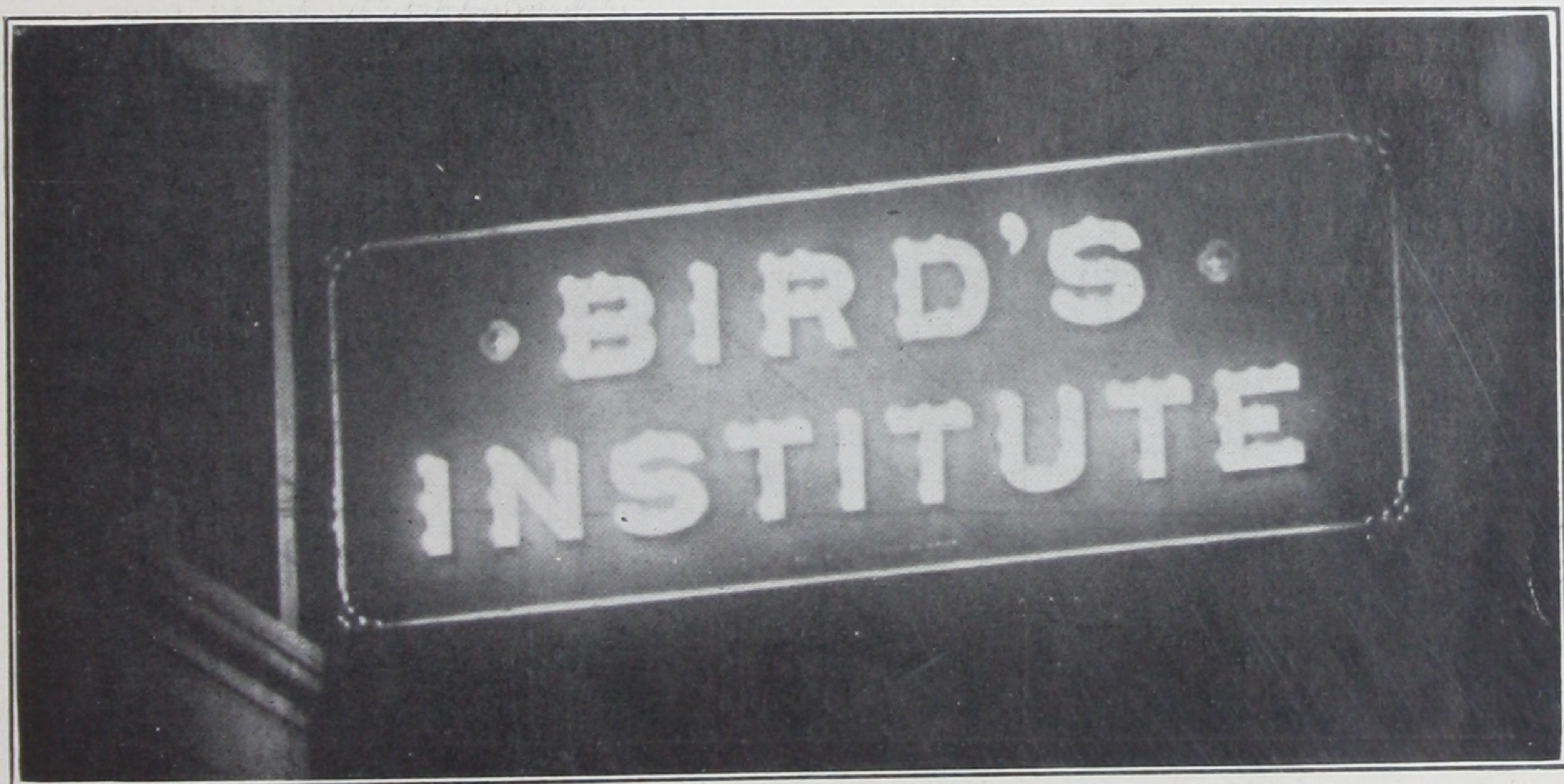


Fig. 53—An educational institution that believes in electric signs for advertising.



# Cost of Operating Various Types of Electric Lights.

(Reprinted from our Bulletin, January, 1906.)

The cost of operating electric signs is unfortunately one of the most hideous bogies to the average layman. He has the idea, as a rule, that their cost is two or three times as great as it actually is. Where these ideas originated cannot usually be traced, but that they frequently prevent the sale of an electric sign is beyond question.

Take a panel sign, for instance, one of those which contain twelve lights to a side, or twenty-four lights altogether, with a glazed enamel panel on which the advertiser's name appears, and the cost of operating it is seldom greater than \$7.00 per month, whereas it is frequently less than \$3.00 per month, depending, of course, upon the number of hours of service required.

How much newspaper advertising could one get for \$7.00 a month — scarcely enough to see—still an electric sign costing this amount per month presents constantly night after night its eloquent plea to the public; everybody who sees it thinks it is pretty; everybody admires it, and is attracted to it and the brilliant show windows and goods which it advertises. This is the main object of the advertiser—to keep his name before the public adequately and eloquently and to make the public come to his store with favorable impressions.

Other types of electric signs are more or less expensive as the case may be. The individual letter sign where the letters are outlined with incandescent lamps, having more lights than other types of signs, is naturally more expensive, in the same proportion, than all other types; but its advertising qualities are so far superior to all others that it has become the favorite wherever good advertising is the object. Where electric companies furnish individual letter signs on a current guarantee basis, they usually require the customer to burn same for five hours each night and on this basis charge a minimum guarantee of \$1.50 per month per letter.

Take, for instance, a sign reading "Hats," and its average monthly cost, burning five hours per night, would be in the neighborhood of \$12.00, if double-sided sign, and if single-sided, \$6.00. Of course the cost will vary in various cities as the rates for current vary, but the customer can adopt the following rule for calculating the cost in any locality knowing the number of lights which he will have in his sign, the number of hours each night he wishes to operate it and the rate charged per kilowatt hour for electricity.

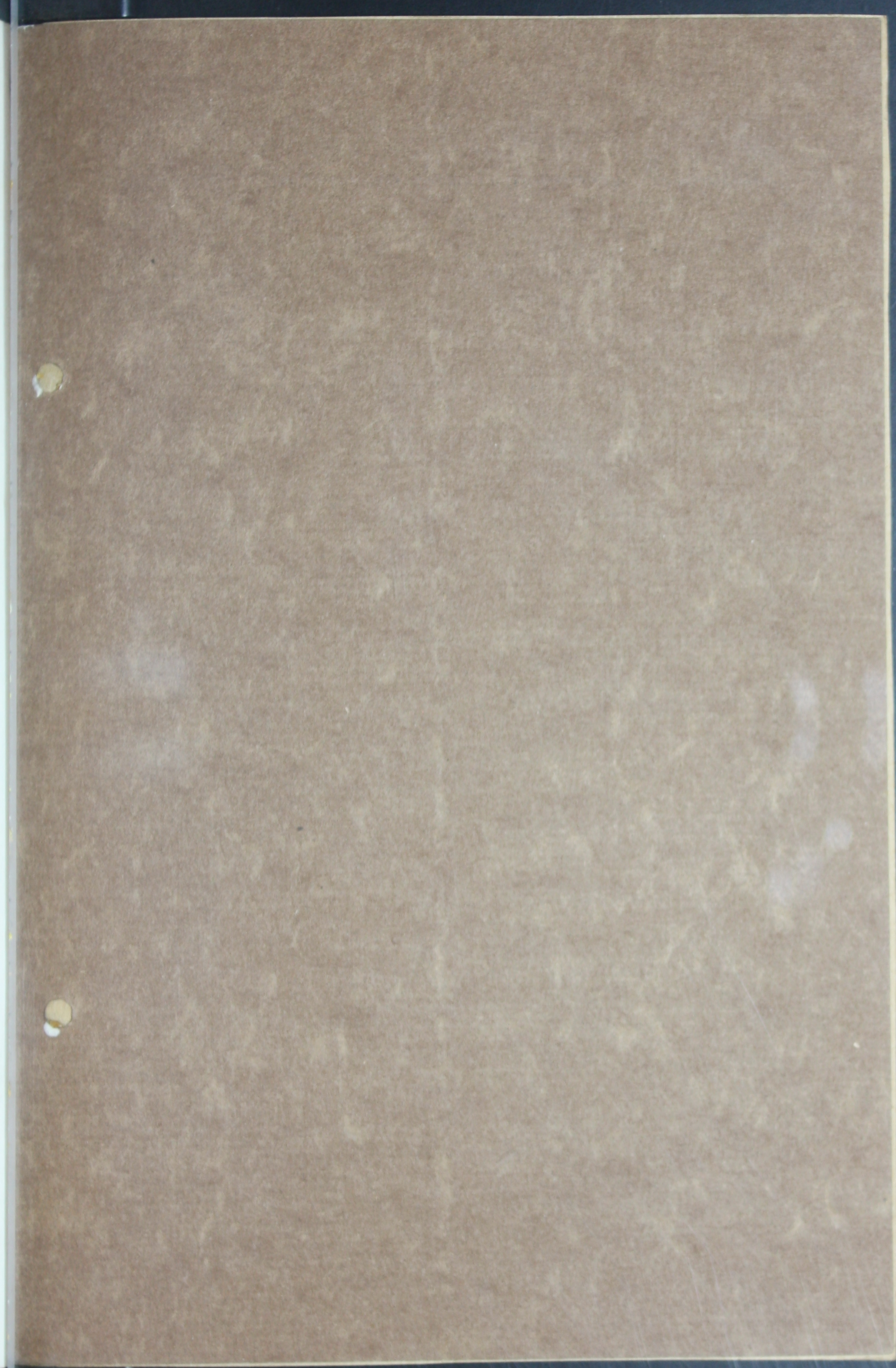
If a sign contains 4 C.P. lamps it takes fifty lights to make up a kilowatt of capacity, and if it contains 8 C.P. lamps it takes approximately thirty-five lights to make up a kilowatt. Now multiply its capacity in kilowatts by the number of hours during which the sign will burn each night and the nightly consumption of current in kilowatt hours is thus obtained. Knowing the rate charged for current, it is easy to multiply the number of kilowatt hours by the rate and thus get the nightly cost of the sign. Upon this basis the following table will show the nightly cost of signs containing various numbers of lamps and using 4 or 8 C. P. lamps if the current rate is ten cents per kilowatt hour.

COST OF OPERATING AN ELECTRIC SIGN PER HOUR IF THE CURRENT RATE IS TEN CENTS PER KILOWATT HOUR, USING 4 OR 8 C. P. LAMPS. (AVERAGE EFFICIENCY.)

No. of Lamps in Sign	Four C. P. Lamps Cost per Hour	Eight C. P. Lamps Cost per Hour
25	5 cents	8 $\frac{1}{4}$ cents
50	10 cents	16 $\frac{1}{2}$ cents
75	15 cents	24 $\frac{3}{4}$ cents
100	20 cents	33 cents
150	30 cents	49 $\frac{1}{2}$ cents
200	40 cents	66 cents

Average number of hours burning per month, 75 to 150 hours.







# WE SELL

---



Westinghouse Electric Fans

Westinghouse Meters

Westinghouse Arc Lamps

Westinghouse Switchboards

Westinghouse Switchboard Instruments

Westinghouse Detail Supplies, Etc.

Westinghouse Incandescent Lamps

Nernst Lamps

Simplex Heating and Cooking Devices

---

EVERYTHING ELECTRICAL

---

*We plan, sell and install entire plants and  
equipments*

---

THE METROPOLITAN ENGINEERING CO.

General Offices and Show Rooms:

124 West 42d Street  
New York City

Factory:

1250 Atlantic Avenue  
Brooklyn, N. Y.



[BLANK PAGE]



CCA